

Sector Overview – Minerals and Related Industries

1 Introduction

1.1. Core Business / Principal activities

- 1) Extraction and mining: This involve the process of extracting minerals from the ground or from ores. It includes exploration, excavation, and processing of minerals.
- 2) Processing and refining: The raw minerals extracted from the ground may require further processing and refining to create mineral-related products such as metals, alloys, and chemicals.
- 3) Manufacturing: Mineral-related products can be used as raw materials in various industries, such as construction, plastics, ceramic and rubber. Focus on developing downstream industries to add value to their mineral resources and create jobs.
- 4) Export and trade: Export processed minerals and related products to other countries, generating revenue and contributing to their economies.
- 5) Environmental management: The extraction and processing of minerals can have significant environmental impacts. Therefore, the mineral industry may need to implement sustainable practices to mitigate these impacts and ensure the responsible management of resources.
- 6) Consultations and submissions: Government holds consultations and invite stakeholders, including the minerals and related industry, to provide feedback on proposed policies or regulations. Sector advisory committee can also submit position papers or recommendations to the government on specific issues.
- 7) Industry representation: Government may invite industry representatives to sit on committees or task forces that are responsible for developing mineral policies. This allows the industry to provide input throughout the policy development process and ensure that their perspectives are considered.
- 8) Data and research: The minerals and related industry can provide data and research on topics such as production volumes, trade flows, and technology advancements. This information can inform policy decisions and help identify areas where government support or investment is needed.
- 9) Technical expertise: The industry can provide technical expertise on topics such as mineral exploration, extraction, processing, and environmental management. This can help ensure that policies are based on sound technical knowledge and are practical to implement.

1.2 Sector Vision

Our vision is to establish a robust and sustainable minerals and mineral-related industry sector that leverages our unique geological endowments and strategic location to attract local and foreign investment, increase foreign income generation, and contribute significantly to the national economy.

1.3 Sector Mission

We aim to create an enabling environment that fosters innovation, drives growth, and enhances competitiveness in the global market, while promoting responsible mining practices and environmental stewardship, as well as social welfare and community development.

Additionally, we are committed to achieving maximum possible value addition locally by establishing downstream industries that utilize our mineral resources, creating jobs, and building local capacity.

By prioritizing education and skills development, we will create a highly skilled workforce capable of driving technological advancement and promoting inclusive economic growth that benefits all our citizens.

Our commitment to transparency, good governance, and social responsibility will earn us the trust and confidence of our stakeholders, enabling us to build strong partnerships with investors, customers, and other stakeholders.

Through our sustained efforts, we will achieve our vision of becoming a preferred destination for investment in the minerals and mineral-related industries, driving significant foreign income generation, contributing substantially to the national economy, and maximizing value addition locally.

1.4 Subsectors

Mining and Mineral processing for local industries

Kaolin, Feldspar, Quartz, Calcite, Dolomite

Mining and Mineral processing for exports

Heavy Mineral Sands (Ilmenite, rutile, zircon), Graphite, Phlogopite Mica, Dimension Stone

Mineral based intermediary material / goods production for exports.

Silica Quartz (grits), High Purity Silica Quartz Powder, High Carbon Graphite Powder, Zirconium Silicate, Precipitated Calcium Carbonate, Phlogopite mica filler.

Mineral based intermediary material / goods production for domestic market.

Zirconium silicate, Precipitated calcium carbonate

Mineral related finished goods production for exports

Cement, glass, wall putty, skim coat putty Silica quartz engineered stone slabs, ceramic, and porcelain tiles, clay roofing tiles, ceramic and porcelain sanitaryware, ceramic and porcelain tableware, granite surfaces (dimension stones).

Mineral related finished goods production for domestic market

Silica quartz engineered stone slabs, skim coat putty, ceramic, and porcelain tiles, roofing tiles, ceramic, and porcelain sanitaryware, ceramic and porcelain tableware, granite surfaces.

1.5 Institutions operating under the subsectors.

Name of Institution	Mining and mineral processing		Mineral based intermediary goods		Mineral related finished goods	
	Local	Export	Local	Export	Local	Export
Bogala Graphite Lanka PLC		X		X		X
Ceyquartz MBI Pvt Ltd				X		X
Krishna Mining Company Ceylon (Pvt) Ltd.	X					
Ceylon Quartz Industries (Pvt) Ltd.				X		
Damsila Resources (Pvt) Ltd.	X	X	X	X		
Lanka Minerals and Chemicals (Pvt) Ltd.	X		X			
Lanmic Exports (Pvt) Ltd.				X		
Olecmo Minerals (Pvt) Ltd.				X		
Alchemy Heavy Metals (Pvt) Ltd.		X				
Mirama Quartz Industries (Pvt) Ltd.				X		
Ceylon Quartz Industries (Pvt) Ltd.				X		
Alchemy Boulders (Pvt) Ltd.				X		
Blue Bay Minerals (Pvt) Ltd.				X		
Sakura Graphite (Pvt) Ltd.						
J Lanka (Pvt) Ltd.				X		
Quantum Quartz (Pvt) Ltd.				X		
Peraj Mining (Pvt) Ltd.	X					
Samson Raja Rata Tiles (Pvt) Ltd.						X
PGP Glass Ceylon PLC					X	X
Lanka Tiles PLC					X	X
Kahatagaha Graphite Lanka (Pvt) Ltd.		X				
Lanka Mineral Sands (Pvt) Ltd.	X	X				
Keshara Lime Industries (Pvt) Ltd	X		X		X	
Keshara Minerals and Chemicals (Pvt) Ltd	X		X		X	
Keshara Mining and Crushing (Pvt) Ltd	X		X		X	
Siam City Cement, PLC			X			

2. Production and Consumption

2.1. Annual Domestic Production

Mining and quarrying sector, which includes the minerals and mineral-related industry, contributed LKR 18.9 billion (approximately USD 101 million) to the country's Gross Domestic Product (GDP) in 2019. This represents an increase of 5.1% compared to the previous year.

Source: Sri Lanka Department of Census and Statistics, "National Accounts of Sri Lanka-2019,"Table2.9

https://www.statistics.gov.lk/national_accounts/dcsna_2019/Table%202.9.pdf

3. Turnover

3.1. Export earnings

According to the Annual Report 2021 of the Central Bank of Sri Lanka, the total export earnings from mineral and mineral-related products in 2021 was USD 44.5 million, which accounted for approximately 0.4% of Sri Lanka's total merchandise exports.

3.2. Export destinations

- China
- India
- Japan
- United States of America
- Germany
- United Kingdom
- South Korea
- Italy
- Austria
- Israel

4. Government Policy on Sector

The Sri Lankan government has been working on developing a new policy for the mineral and mineral-related industries, which is expected to provide a roadmap for the development of the sector in a sustainable and responsible manner. The government has been engaging with various stakeholders, including industry representatives, environmental groups, and community organizations, to ensure that the policy reflects the needs and priorities of all parties.

However, the preparation of this new policy has taken a long time, as the government has been keen to consult with all stakeholders and incorporate their feedback. In a recent meeting, the government shared a draft version of the policy with stakeholders, including industry representatives. The meeting provided an opportunity to provide feedback on the policy and suggest changes or additions. Once the feedback has been incorporated, the policy will be finalized and discussed with all stakeholders before being approved.

The policy is expected to address a range of issues, including environmental protection, health and safety, community engagement, promotion of investment to the sector for exploration, development, and downstream processing of minerals. It will also provide guidelines for the exploration, extraction, processing, and export of minerals in Sri Lanka.

In addition to the new policy, the Sri Lankan government has also recently amended and approved the Regulations of the Mines and Minerals Act, which was announced in government gazette No. 2313/37 of Wednesday, January 04, 2023. The amendment provides a legal framework for the regulation of the mining sector in Sri Lanka and is designed to promote sustainable and responsible mining practices.

Overall, the Sri Lankan government is committed to promoting the sustainable and responsible development of the mineral and mineral-related industries in the country, and the development of a new policy is an important step in this direction. The government will continue to engage with all stakeholders to ensure that these policies are effective and meet the needs of all parties.

5. Sector Strategies

- a. Government policy: To provide valuable input to the government in making policy decisions related to the mineral and mineral-related industry. It is important to ensure that such policies are sustainable and practical, and that they attract more investment towards resource development, production, and local value addition. This can help to create a conducive business environment for the industry and promote long-term economic growth and development.
- b. Technology transfer and skill development: Given that Sri Lanka has a low level of technological advancement in the mineral sector, it would be important to promote technology transfer from more advanced countries or companies. The government could also invest in skill development programs to train workers in the latest techniques and technologies for mining, processing, and manufacturing mineral-related products. This would help to increase the value added to minerals and increase the competitiveness of Sri Lankan products in the global market.
- c. Infrastructure development: The lack of infrastructure, such as reliable power supply is a major challenge for the mineral sector in Sri Lanka. The government could invest in the development of infrastructure to support the industry, which would make it easier and more cost-effective to mine and transport minerals, and to process and manufacture mineral-related products.
- d. Promoting local manufacturing: Rather than exporting raw minerals, Sri Lanka could focus on developing a local manufacturing sector that adds value to the minerals before they are exported. This would help to increase the value added

to minerals and promote import substitution by producing finished products locally instead of importing them.

- e. Encouraging foreign investment: Given that Sri Lanka has low capital reserves for investment in the mineral sector, it would be important to encourage foreign investment to help develop the industry. This could be done through tax incentives, streamlined regulations, and other measures that make it easier for foreign companies to invest in Sri Lanka.
- f. Export diversification: While Sri Lanka has a variety of mineral resources, it is heavily reliant on a few products, such as graphite and ilmenite. Diversifying the range of mineral-related products that are exported could help to increase export earnings and reduce the country's dependence on a few key products. The government could provide support for research and development to identify new products and markets for Sri Lankan mineral-related products.

6. SWOT Analysis

STRENGTHS:

Abundance of minerals:

- Sri Lanka is renowned for its diverse industrial mineral resources, which include graphite, ilmenite, rutile, zircon, quartz, feldspar, clay, and kaolin.
- These minerals are highly advantageous for the mining, processing, and export industry in the country, and can contribute significantly to Sri Lanka's economic growth and development.
- The minerals found in Sri Lanka play a crucial role in various industries such as construction, electronics, and automotive, highlighting their economic importance.
- Sri Lanka's broad range of industrial mineral resources establishes a firm foundation for the mineral industry, making it a valuable player in the global market.

Skilled workforce:

- Sri Lanka boasts a skilled and knowledgeable workforce.
- The Technical and Vocational Education and Training (TVET) system in Sri Lanka provides training and certification programs, helping to develop a competent and skilled workforce.

Established Logistics Infrastructure:

- Sri Lanka possesses a robust infrastructure comprising ports, roads, railways, airports, and highways, which facilitate the movement of minerals from mines to processing facilities and export destinations.
- The Colombo, Trincomalee and Hambantota ports, are prominent examples of Sri Lanka's infrastructure capacity, capable of accommodating large cargo

ships and serving as a vital link for mineral exports from Sri Lanka to the rest of the world.

- Efficient transportation links are essential for the growth and development of the mineral industry in Sri Lanka, enabling the effective and timely transport of minerals and related products to different destinations.

Favorable Geographic Location:

- Sri Lanka's strategic location in the Indian Ocean serves as a gateway to Asia and other global markets, making it ideal for exports.
- The country's location in the Indian Ocean provides significant opportunities for exports and can potentially attract foreign investment in the mineral industry.

WEAKNESSES:

Limited Exploration:

- Sri Lanka has abundant mineral resources that are yet to be fully explored.
- The industry's growth potential is limited due to this lack of exploration and discovery of new mineral deposits.
- Exploring and discovering new mineral deposits can provide opportunities for the industry to diversify its products and increase revenue streams.
- The industry is currently concentrated around a few minerals, such as graphite and ilmenite, which limits its ability to grow and expand.
- Dependence on a few minerals is a weakness as it increases the risk of price fluctuations and supply chain disruptions.
- Diversification into other minerals could help mitigate this risk and provide a more stable revenue stream for the industry.

Limited Technological Advancements:

- The mineral industry in Sri Lanka faces challenges in adopting advanced mining and processing technologies.
- Limited investments in research and development limit the industry's ability to improve efficiency and reduce costs.
- The industry's inability to access the latest technologies may affect its competitiveness in the global market.
- The industry in Sri Lanka still relies heavily on traditional methods of extraction, which can be time-consuming and inefficient.
- The lack of advanced technology can hinder the development of the industry, making it less efficient and less sustainable.
- Inadequate Research & Development to identify and produce advanced value added mineral based products using the mineral resources available in Sri Lanka

Limited Investment:

- The mineral and related product industry in Sri Lanka has received limited investment over the years, which has limited its growth potential.
- The industry requires significant investment to modernize and expand.

Limited Human Resources:

- Despite having a skilled workforce, Sri Lanka has a limited pool of experts with experience in the mineral industry. This can be a significant constraint for the industry.
- Comparatively high labor cost when compared to other South Asian competitors.

Environmental Concerns:

- Sri Lanka needs to develop and implement sustainable and practical mining practices to mitigate the environmental impact of mineral extraction.

- The mining industry has the potential to cause negative environmental impacts, including pollution and land degradation.

Challenges in Accessing International Markets:

- Sri Lanka's mineral industry faces trade barriers and competition from established players in the global market, making it difficult to access international markets.
- Established players in the global market have a significant market share, which makes it challenging for Sri Lanka's mineral industry to compete.

Small Domestic Market for Minerals and Related Products:

- The relatively small size of Sri Lanka's domestic market for minerals and related products limits the potential for growth in this area.
- The limited demand for minerals and related products in Sri Lanka means that the industry must focus on exporting its products to generate revenue.
- The small domestic market also limits opportunities for local businesses to invest in the industry, which could help to promote growth and development.

Limitations in Mineral Industry Related Infrastructure and Services

- Sri Lanka faces a few challenges in the mineral industry, such as the absence of world-class laboratories for mineral testing.
- Additionally, there are challenges in accessing instruments and equipment related to the industry, which may affect the quality and efficiency of mineral processing.
- Another significant challenge is the lack of related industries to support viable downstream processing of minerals within the country, which may limit the economic benefits that can be derived from the mineral industry.

Bureaucratic Red Tape & Lack of Understanding of The Industry Dynamics by Regulators.

- The mining industry in Sri Lanka currently faces challenges in obtaining approval for exploration and development of mineral resource projects due to a complex bureaucratic process.
- Most policymakers and regulators emphasize the need for a vertically integrated mineral resource industry, where mining companies are expected to produce intermediary or end products, which may limit the growth of the mining sector.
- There is also a lack of understanding of the limitations within the country by policymakers and regulators, which may affect the formulation of appropriate policies and regulations for the mining industry.
- Insufficient valid time period for the Mineral License issued by GSMB.
- Some govt, organizations prioritize income over the policy & national interest.
- Vague rules and regulations.
- Ineffective diplomatic service.

High Cost of Production, Royalty, and Taxes

- High electricity expenses.
- Royalty rates that are comparatively high when compared to established mineral-producing regions.
- Indirect taxation.
- Royalties applied based on the Free on Board (FOB) value at the point of export or sale, rather than the pithead cost of the mineral, which may discourage local value addition to the mineral.

OPPORTUNITIES:

Diversification of Minerals:

- Sri Lanka has the potential to diversify its mineral portfolio by exploring new deposits and building new mineral processing facilities.
- Diversification can help reduce the industry's reliance on a few minerals and increase revenue streams.
- The industry can diversify into new areas such as rare earth, which are in high demand globally.
- Sri Lanka can leverage its diverse range of mineral resources to expand its exports and diversify its economy.

Geopolitics & Emerging Markets:

- Emerging markets like China, India, and Brazil offer potential growth opportunities for Sri Lanka's mineral exports due to their increasing demand for minerals and related products.
- Rapid industrialization and urbanization in these countries further contribute to the growing demand for minerals.
- The global demand for minerals is expected to continue to rise in the long term, creating further opportunities for Sri Lanka to expand its exports.
- Sri Lanka's mineral industry can capitalize on these opportunities by exploring new markets and expanding its export portfolio.
- China- USA trade war has caused a positive impact on exports of ceramic and porcelain products of Sri Lanka as USA has imposed high taxes for Chinese imports.
- When promoting Carbon – Net – Zero concept in Europe, ceramics, porcelain and red clay products can be introduced for replacing plastics and many synthetic materials.

Sustainable Mining Practices:

- The industry can adopt sustainable mining practices, such as environmentally friendly mining techniques and responsible waste management, to meet the growing demand for eco-friendly products and to comply with international regulations.
- This can help to improve the industry's reputation and increase market opportunities.

Foreign Investment:

- Sri Lanka's mineral industry presents significant opportunities for foreign investment.

Integration With Other Industries:

- The mineral industry can integrate with other industries such as plastics, paint, electronics and renewable energy, creating new opportunities for growth and development.

Increasing Use of Technology and Research and Development:

- The industry can benefit from increased research and development to develop new technologies and products, which can enhance its competitiveness in the global market.

THREATS:

Volatile Commodity Prices:

- The mineral industry is exposed to the risk of volatile commodity prices, which can have a significant impact on profitability.
- Commodity prices are influenced by global supply and demand as well as geopolitical factors, making them difficult to predict and control.

Global Economic Slowdown:

- The mining industry is vulnerable to a global economic slowdown, which can lead to reduced demand for minerals.
- The decreased demand can cause a drop in mineral prices, which can negatively impact the mining industry's profitability and revenue.

Environmental Regulations:

- The industry faces increasing pressure to comply with environmental regulations, which can increase costs and reduce profitability.
- The need to adopt sustainable mining practices is becoming more critical as environmental concerns gain importance globally.
- Failure to adopt sustainable mining practices can result in legal and financial repercussions.
- Sri Lanka's mineral industry needs to adopt sustainable mining practices to comply with environmental regulations and reduce its impact on the environment. The industry is subject to various regulations and legal requirements that can affect its operations and add costs.

Competition from Other Countries

- Sri Lanka's mineral industry faces stiff competition from other countries with well-established mining and processing industries, such as China, India, and Australia.
- This competition makes it challenging for Sri Lanka to compete on price and quality in the global market and access international markets.
- Low cost of labor in competitor countries.

Political Instability and Policy Risk:

- Political instability in Sri Lanka has a significant impact on the mineral industry, especially with regards to foreign investment.
- The industry relies heavily on foreign investment to finance exploration activities.
- Foreign investors may perceive Sri Lanka as a risky investment destination due to political instability, which can limit the industry's growth potential and hinder its global competitiveness.
- Stable governance and a clear regulatory framework can provide certainty and confidence to investors, which can encourage investment in the industry.
- Implemented tax structures are not favorable to attract foreign investors.
- Inconsistent government policy.

7. Risks associated with proper functioning of the sector.

There are several risks associated with the proper functioning of the mineral and mineral-related product sector in Sri Lanka. These risks include:

- Political instability and uncertainty: Sri Lanka has a history of political instability, which can impact the business environment and investment climate. Political turmoil and uncertainty can lead to changes in policies and regulations, which can impact the industry's operations and profitability.
- Environmental risks: The mining and processing of minerals can have significant environmental impacts, including pollution and land degradation. Failure to properly manage these risks can lead to negative impacts on the environment and public health, as well as regulatory and reputational risks.
- Market risks: The prices of minerals and related products can be volatile and subject to global market conditions, which can impact profitability. Changes in consumer demand, competition from other countries, and trade policies can also impact market conditions and pose risks to the industry.
- Social risks: The mining industry can have significant social impacts, including displacement of communities, conflict over land rights, and labor issues. Failure to properly manage these risks can lead to reputational damage and negative impacts on stakeholder relationships.

Overall, the proper functioning of the mineral and mineral-related product sector in Sri Lanka is subject to a range of risks that must be properly managed to ensure the industry's continued growth and success. Effective risk management strategies can help mitigate these risks and ensure the industry operates in a safe, sustainable, and profitable manner.

8. Challenge(s) the sector is facing due to Government rules and regulations.

- Licensing and permitting process: The licensing and permitting process for mining activities can be time-consuming and complex, which can delay the start of operations and increase costs.
- Environmental regulations: In certain instances, the regulators have implemented strict environmental regulations that require mining companies to mitigate and manage the environmental impacts of their activities. Compliance with these regulations can be costly and time-consuming.
- Royalties and taxes: The government imposes royalties and taxes on the mining industry, which can impact profitability and discourage investment. Sri Lanka currently has a very high royalty structure, which discourages local value addition as the royalty is charged at FOB rate rather than the pithead cost of the mineral.
- Export regulations: The government regulates the export of certain minerals and mineral-related products, which can limit the industry's access to global markets and impact profitability.

Overall, while government rules and regulations are important for ensuring the sustainable and responsible development of the mineral and mineral-related products sector in Sri Lanka, they can also pose challenges for the industry. Effective collaboration between the government and industry stakeholders is crucial for ensuring that regulations are balanced and provide a conducive environment for the industry to grow and thrive.

9. Global Market Value and CAGR

- According to a report by Grand View Research, the global non-metallic minerals market was valued at USD 71.3 billion in 2020 and is expected to reach USD 117.5 billion by 2028, growing at a CAGR of 6.2% during the forecast period of 2021 to 2028.
- Another report by MarketsandMarkets estimates that the global industrial minerals market, which includes non-metallic minerals such as limestone, kaolin, and gypsum, will grow from USD 61.0 billion in 2020 to USD 75.4 billion by 2025, at a CAGR of 4.3% during the forecast period.

It is important to note that these reports provide estimates and projections for the global market and not specifically for the non-metal mineral and mineral-related product industry in Sri Lanka. However, these reports provide a general idea of the growth potential and value of the non-metal mineral industry worldwide.