MINERAL Sector

The Board of Investment of Sri Lanka
Overview

Sri Lanka is well-endowed with industrial minerals including Graphite, Ilmenite, Rutile, Zircon, Quartz, Feldspar, Clay, Kaolin, Apatite, (Phosphate Rock), Silica Sand, Garnet sand, Mica, Calcite and Dolomite.

Pulmoddai beach sand deposit is the most important nonferrous mineral reserve in Sri Lanka, containing some of the most expensive and sought-after metals in the world. Ilmenite (FeTiO$_2$) and rutile (TiO$_2$) are found in enormous concentration in the Pulmoddai beach sand deposit area. Several other mineral-sand deposits of Monazite, Zircon, Garnet and Ilmenite are found in various parts of the island, and are now being exported.

The use of graphite in Sri Lanka has a long history that dates back to 1675. Sri Lankan graphite has gained popularity all over the world for its high purity and offers many processing applications in graphite lubricants, flake graphite, carbon brushes, refractory bricks and midget electrodes and nano-technology.

Three main types of clay - kaolinite, ball clay and brick clay are used for export industries. Yellow, red and blue colour ball clay is found in Sri Lanka’s hill country, which are used to make casts and as refractory material due to its strength attributes and high plasticity. Brick clay, found mostly in river valleys, are commonly used in the production of bricks and tiles.

Quartz, ball clay, silica and feldspar are utilized in the ceramics and glass industries with great success; the country’s porcelain is ranked among the best in the world.

Ilmenite
The Total Reserves (Ilmenite): 4.3 Million Tons

The Pulmoddai Deposit:
- Six kilometers in length with an average width of 100 meters
- Estimated to contain six million tons of heavy sands with an average composition of 70-72 % ilmenite, 8-10 % zircon, 8 % rutile, and 0.3 % monazite
- Ilmenite (FeTiO$_2$) and rutile (TiO$_2$) found in enormous concentrations
- TiO$_2$ concentrations of ilmenite almost 53% and rutile is about 95%

Graphite
- The only country in the world where crystalline graphite or lump (vein) graphite is available
- Benchmark Graphite Purity within the Industry (Carbon range)
  - Global: 94% - 97%
  - Sri Lanka: 97% - 99.9%
- The total reserve: 5 Mn. tons
- Major graphite deposits: Bogala & Kahatagaha
- The largest graphite mine is Kahatagaha Kolongaha (K/K), situated 27 km north east of Kurunegala. This is deeper than 650 m
**Silica Sand**
- White colour high purity (over 98% SiO2) Silica sand deposits are found in Marawila, Nattandiya, and Madampe (in Puttalam district) and also in Ampara and Jaffna peninsula. Silica sand is mined from Nattandiya and Madampe seas to be used as a raw material in the glass and ceramic industries.

**Apatite**
- One of the best economic mineral reserves is the apatite rock phosphate at Eppawala. It reserves extents over 7 km² and about 125 m deep from the surface. This has been proven by deep drilling. It is estimated that the reserve consists of 60 million tons of apatite. Apatite is being used to produce phosphate fertilizer.

**Priority Minerals for Investment Attraction**

- **Eppawala Rock Phosphate**
  - Area = 4 km²
  - Size = 60 Mn. mt
  - Longevity = 200 yrs
  - (at the current mining rate)

- **Pulmudai Beach Sand**
  - Ilmanite, Rutile, Zircon
  - Length = 6 km
  - Width = 100 m
  - Size = 6 Mn. mt
  - Longevity = 30+ yrs
  - (at the current mining rate)

- **Kahatagaha & Bogala Graphite**
  - Kahatagaha = 650 m deep
  - Bogala = 370 m deep
  - Total Size = 450 k mt

- **Puttalam Beach Sand**
  - Ilmanite, Rutile, Zircon
  - Area = Variable
  - Size = 1.5 Mn. mt

**Key Facts**
- Mineral production over 200,000 MT
- Exports US$ 30 Mn. per annum
- Employment around (No.) 100,000

**Export Performance**

**Mineral Exports (2016-2020)**

<table>
<thead>
<tr>
<th>Year</th>
<th>US$ Mn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>25.82</td>
</tr>
<tr>
<td>2017</td>
<td>30.24</td>
</tr>
<tr>
<td>2018</td>
<td>30.38</td>
</tr>
<tr>
<td>2019</td>
<td>29.46</td>
</tr>
<tr>
<td>2020</td>
<td>22.58</td>
</tr>
</tbody>
</table>
Major Export Destinations

Source: Export Development Board

Strengths / Advantages

- Purity of Graphite and produce Vein Graphite: Very high-grade deposits with the world best carbon ranging from 97-99.9% percent and least impurities.
- One of the best qualities and offers many processing applications in Graphite lubricants, flake Graphite, carbon brushes, refractory bricks and midget electrodes and Nano-technology.
- Salient features of Ceylon Graphite
  - Crystalline perfection
  - High thermal and electrical conductivity
  - Lubricating properties
  - Chemically inert
  - Resistance to oxidation and high temperatures
  - High density
  - Eco-friendly
- High purity of silica quartz in Sri Lanka is high compared to the world and range from 98% to 99.9%.

Skilled Labour

- Over 1,500 Engineering Graduates from State Universities per annum.
- University of Vocational Technology (UNIVOTEC) records an output of over 800 graduates per annum in the field of Technology.
- Vocational Training institutions generate over 10,000 skilled labourers per annum.

Availability of Raw Materials

- Ilmanite/Rutile/Zircon: 7.5 Mn. mt (Pulmudai & Puttalam)
- Graphite: 450,00 mt (Bogala & Kahatagaha)
- Apatite: 60 Mn. mt

Market Access

- Duty Concession under Indo-Si Lanka Free Trade Agreement (ISLFTA) - 100% duty free
- Duty Concession under Pakistan-Si Lanka Free Trade Agreement (PSLFTA)- 100% duty free
Benefits to Investors

**Tax Incentives**

**Enhanced Capital Allowance** (In addition to normal depreciation allowance)

Enhanced capital allowances are granted to a person (an individual or entity) in addition to the normal depreciation allowance, as given in the below table. This facility is available for persons who make new investments in Sri Lanka.

<table>
<thead>
<tr>
<th>Total Investment Made (US$ Mn)</th>
<th>Enhanced Capital Allowance</th>
<th>Period for Deducting unrelieved Losses (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Northern Province</td>
<td>Other than Northern Province</td>
</tr>
<tr>
<td>&gt; 3 and ≤ 100</td>
<td>200%</td>
<td>100%</td>
</tr>
<tr>
<td>&gt; 100 and ≤ 1,000</td>
<td></td>
<td>150%</td>
</tr>
<tr>
<td>&gt; 1,000</td>
<td></td>
<td>150%</td>
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</table>

**Exemption from Import Taxes & Levies**

**Export oriented**

<table>
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<tr>
<th>Exemption</th>
<th>Customs Duty</th>
<th>VAT</th>
<th>PAL</th>
<th>CESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importation of construction related items during project implementation (PI) period</td>
<td>Exempted</td>
<td>Exempted/deferred</td>
<td>Exempted During PI (For Inv &gt; US$ 50 Mn)</td>
<td>Exempted During PI (For Inv &gt; US$ 50 Mn)</td>
</tr>
<tr>
<td>Importation of Capital items (plant, machinery, equipment)</td>
<td>Exempted For lifetime</td>
<td>Exempted/deferred For lifetime</td>
<td>Exempted For lifetime</td>
<td>Exempted For lifetime</td>
</tr>
<tr>
<td>Importation of raw materials and production/process related consumables</td>
<td>Exempted For lifetime</td>
<td>Exempted/deferred For lifetime</td>
<td>Exempted For lifetime</td>
<td>Exempted For lifetime</td>
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**Non-Export oriented**

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Potential areas for Investment

**Graphite**
*Graphene Technology*
Graphene has a unique set of properties that show potential to be used in a wide range of applications such as transistors, high-sensitivity sensors, transparent conductive films for touch screen displays, more efficient solar cells and electrodes in energy storage devices.

**Titanium**
Pigments

**Graphite/Titanium related industries**

**Automobile Industry**
Manufacturing of brakes, brake linings, clutch facings, engine parts, friction components, mechanical seals, electronic devices, transistors, high-sensitivity sensors & tools.

**The High-Tech Industry**
Lithium-ion batteries, fuel cells, photovoltaic solar cells, transparent conductive films for touch screen displays, electrodes in energy storage devices, integrated circuit & other kind of batteries.

**Industrial Products**
Lubricants, metal powders, polymer, rubber components, anti-corrosive paints.

**Aerospace Industry:** Air frames, Aircraft engines, Space rockets
**Civil Engineering and Construction:** Roofing, Curtain-walls, Monuments
**Medical:** Implants, Artificial bones
**Ocean civil engineering:** Ocean platforms, Ship hulls, Bridges, Rigs

Major Investments in Sri Lanka

- Bogala Graphite Lanka Plc
- Kahatagaha Graphite Lanka Ltd
- Alchemy Boulders Pvt Ltd
- Ceyquartz M B I Pvt Ltd
- Ceylon Quartz Industries Pvt Ltd
- Piramal Glass Ceylon Plc

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