Kosovo Land of Mining Opportunities

Musa Shabani
Kemajl Zeqiri
Festim Kutllovci
Kosovo’s geographic position
Geography

- Capital: Prishtina
- Climate: influenced by continental air masses resulting in relatively cold winters with heavy snowfall and hot, dry summers and autumns.
- Territory Extends; longitudes 41° 50’ 58” and 43° 15’ 42” - latitudes 20° 01’ 30” and 21° 48’ 02”
- Highest point; 2,565 meter (Gjeravica)
- Lowest point; 297 meter (Drini i Bardhë)
- Kosovo has high seismic activity, namely Alpine-Himalaya zone
- In the past in this region were recorded 82 earthquake which exceeding 5 degree of Mercalli-Cancani-Sieberg scale (MSC)
- Land area: 10,900 km2 (4,203 square miles).

Population

- Population: Approximately 2 million
- Language; Albanian, Serbian.
- International presence is English short of official language.
- People: 90% Albanians, 5% Serbs, 3% others (Croats, Roma, Turks)
- Demographics: 49.9% female, 50.1% male, with 50% aged 25 or younger.
- Literacy rate: 89.8% female, 97.7% male

Economy

- Currency; Euro (€)
- Major industries: Energy, Mining, Agriculture
- Natural Resources: Lignite, nickel, lead, zinc, silver, magnesium, kaolin, chrome, bauxite etc.
- VAT; 18%, Corporate Profit TAX 10%
- Financial Sector; Banking Authority of Republic of Kosovo.

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Institutional Framework

- **Ministry of Economic Development** MED is responsible to **develop policies and strategies** on the overall **economic development, monitor public enterprises**, develop and implement policies/documents and strategies on the energy sector, mining, post and telecommunications, and the information technology sector, energy balance documents, energy efficiency and renewable energy sources, in line with the applicable legislation.

- It cooperates in the development and implementation of **international agreements in the energy sector, mining, post and telecommunication**, and the information technology sectors.
Independent Commission on Mines and Minerals

- Is an independent agency in line with Article 119 paragraph 5 and 142 of the Constitution of the Republic of Kosovo. ICMM works according to the Law on Mines and Minerals and based on the principles of Mining Strategy of the R. Kosovo (2012-2025). The main responsibility of ICMM is Licensing and Inspection of Mining Activity

Privatization Agency of Kosovo (PAK)

- As a structure accountable to the Kosovo Assembly, inter alia, is also tasked to administer socially owned enterprises of the mining sector, including privatization.

The Energy Regulatory Office (ERO)

- Was established in 2004 with the Law on the Energy Regulatory No 03-L-116 as an independent regulatory authority for the electricity, district heating and natural gas sectors.

Other Government Bodies

- Such as the Ministry of Environment and Spatial Planning, and the Ministry of Labor and Social Welfare, play key roles in monitoring other social, economic and environmental components of the mining industries.
GENERAL PROCESS FOR MINING LICENSES APPROVALS IN KOSOVO JURISDICTIONS

Mines Laws:

- Law No. 03/L – 163 on Mines and Minerals
- Law No. 04/L-158 on amending and supplementing the Law No. 03/L – 163 on Mines and Minerals

The applicant submits the application to the competent authority for approval

MINING POLICIES
Mining Strategy of the Republic of Kosovo

Independent Commission for Mines and Minerals (ICMM), Kosovo

The environmental consent issued by the Ministry of Environment and Spatial Planning

Ministry of Agriculture Forestry and Rural Development (Kosovo Forest Agency)

The consent issued by the municipalities

Other relevant laws:

1.1. Law on Expropriation
1.2. Law on Spatial Planning
1.3. Law no. 03/L-214 on Environmental Impact Assessment
1.4. Kosovo Forests Law
1.5. Law on Kosovo Geological Service
1.6. Law on Permit and License System

Secondary legislation:

2.1. Administrative Instructions of ICMM
2.2. Regulations of the Ministry of Economic Development
2.3. Regulations of the Ministry of Agriculture
2.4. Regulations of the Ministry of Environment and Spatial Planning

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Mining Licenses Process

Application procedure
For the concerned Mineral Resources within the concerned area

Geologist/Mining engineer – Responsibility person

The names and addresses of the applicant’s Significant Owners and directors, if any, and The official registered address of the applicant in Kosovo

The Mining Program proposed to be undertaken by the License applicant

A mine closure plan and a rehabilitation program

Financial guarantee for rehabilitation program

A copy of the relevant Exploration License

One or more maps showing:
The area under application, defined by coordinates

Relevant cadastral documentation as prescribed by the ICMM

The environmental consent issued by the MESP ((within 30 days)

The consent issued by the municipalities (within 30 days)

Surface Rights Agreement(s) between the applicant and persons with property rights

Surface Rights Agreement(s) between the applicant and (Kosovo Forestry Agency) (within 30 days)

Within two (2) months

MINING LICENSES
Kosovo's Geology

Kosovo has a varied geology that ranges in age from the Neo-Proterozoic to the Holocene

- **Holocene**, scree formed from weathering of mountains and alluvium deposited by the rivers
- **Pliocene**, andesitic chert
- **Upper Miocene-Pliocene**, formation of lignite from the accumulation and subsequent decay of vegetation in sedimentary basins
- **Oligo-Miocene**, conglomerates, clays and limestones, accompanied by acidic to intermediate magmatism
- **Late Cretaceous 'molasses'**, shallow-water carbonates and clastics
- **Upper Cretaceous 'flysch'**, marly limestones, sandstones and conglomerates
- **Early Cretaceous**, conglomerates, sandstones and silts
- **Late Jurassic**, massive limestones
- **Triassic-Jurassic**, basic and acidic magmatism, and associated ophiolitic crustal rifting and abduction of ultra basic rocks
- **Triassic**, clastics with volcanics giving way to carbonate platforms that grade up into dolomites, some of which have been metamorphosed to marble
- **Permo-Triassic**, carbonates, clastics, phyllite, schists and quartzites that have been invaded by acidic magmatism (quartz porphyries)
- **Late Palaeozoic**, schists
- **Neo-Proterozoic-Palaeozoic**, basement of schists, gneisses and amphibolites that have been invaded by granitic plutons.
Main Mineral Resources – main mineral reserves

- Lead, Zinc, Silver, etc.
- Lignite
- Nickel and Cobalt
- Chromium
- Copper
- Magnesium
- Bauxite
- Iron
- Manganese
- Industrial Minerals
- Etc.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lignite</td>
<td>12.50 Billion ton</td>
</tr>
<tr>
<td>Lead &amp; Zinc</td>
<td>60.00 Million ton</td>
</tr>
<tr>
<td>Nickel</td>
<td>13.00 Million ton</td>
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<tr>
<td>Bauxite</td>
<td>3.00 Million ton</td>
</tr>
<tr>
<td>Magnesium</td>
<td>4.00 Million ton</td>
</tr>
</tbody>
</table>

Source: Republic of Kosovo, Mining Strategy (2012-2025)
Mineral Resources Extent

- Lead, Zinc, Silver, etj.
- Lignite
- Nickel & Cobalt
- Chrome
- Cooper
- Magnesium
- Bauxite
- Ferrous
- Manganese

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Three main basins:

1. Kosova
2. Dukagjin
3. Drenica

Kosova Lignite Basin is one of the largest in Europe with most favorable mining conditions:

- Its resources are estimated at more than 10 billion t of lignite, and
- The average calorific value is 7,800 kJ/kg, the average ash content is in the range of 14 – 17 % and the moisture varies between 42 – 49 %

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2. Dukagjini Lignite Basin is the 2\textsuperscript{nd} largest deposit in Kosova. It covers an area of 95 km\textsuperscript{2}.
   - Its resources are estimated around 3 billion t of lignite, and
   - The average calorific value varies between 6,000 and 10,000 kJ/kg, the average ash content is around 20\% and the moisture varies between 40 – 50\%.

3. Drenica Lignite Basin is divided into two coal plains namely (i) Skenderaj, and (ii) Drenas
   - Its resources are estimated around 90 million t
   - The average heating value is 7300 kj/kg, with an average moisture of 32,46\% and an ash content of 25,60\%
Zones of special interest typically have “hot” geophysical characteristics and drilling or other geophysical survey data. 

Vllahi-Zjace: Commodity: Pb-Zn;  
Gumnishtë: Commodity: Pb-Zn;  
Karace: Commodity: Pb-Zn;  
Baks: Commodity: Ni;  
Terstenik: Commodity: Ni;  
Bushince Bolevc: Commodity: Pb-Zn  
Koretishes: Commodity: Pb-Zn  
Zhegovcit: Commodity: Pb-Zn  
Debelde: Quartzite  
Medvec-Halilaq: Magnesite  
Deva: Commodity: chromium;
Kosovo is enriched with industrial minerals, including:

- Kaolin
- Bentonite
- Halloysite
- Quartz and Quartzite
- Diatomite
- Talc
- Sepiolite
- Leucite
- Garnet
- Asbestos

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Until the end of the 1980s, industry and mining were participating in gross domestic consumption of about 50%, mainly based on the reserves of natural resources (coal, metals ores etc.).

Due to the drastic reduction in production, the level of pollution from industry and mining has been reduced, but some of the environmental problems from the past still prevail: the old technology and equipment and huge amounts of mining and metallurgy waste from the past continue to be a permanent source of environmental pollution.

Main problems;

- Abounded Mines and none rehabilitation of post- mining areas
- Acid Main Drainage – AMD
- Contamination of air by dust blown from the tailings and ash damps during high wind events
- Contamination of sediments and surface water from tailings materials
- Contamination of groundwater - beneath by metals leaching from the tailings,
- Tailing material erosion – Surface water pollution
- Insecurity of tailings dump - Risk from Seismic Events-natural catastrophes
- Gas Emission from PP

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Tailings Dumps

<table>
<thead>
<tr>
<th>No</th>
<th>Tailings Dump</th>
<th>Location</th>
<th>Area/Ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tailing (Pb-Zn)</td>
<td>Leposaviq</td>
<td>20.31</td>
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<tr>
<td>2</td>
<td>Dump with radioactive matter</td>
<td>Tuneli i Pare</td>
<td>0.03</td>
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<tr>
<td>3</td>
<td>Tailing (Pb-Zn)</td>
<td>Kelmend Zveqan</td>
<td>23.78</td>
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<tr>
<td>4</td>
<td>Tailing – Slag material</td>
<td>Zveqan</td>
<td>62.28</td>
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<tr>
<td>5</td>
<td>Radioactive matter</td>
<td>Laboratori PIM</td>
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<td>6</td>
<td>Industrial park of Trepça</td>
<td>Mitrovice</td>
<td>115.1</td>
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<td>7</td>
<td>Ash dump</td>
<td>KEK Obiliq</td>
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<tr>
<td>8</td>
<td>Ash dump</td>
<td>KEK Obiliq</td>
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<tr>
<td>9</td>
<td>Tailing (Pb-Zn)</td>
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<tr>
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<td>Tailing (Pb-Zn)</td>
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<td>Tailing (Pb-Zn)</td>
<td>Kishnice</td>
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<td>13</td>
<td>Tailing - Ferronickel</td>
<td>Çikatovë Drenas</td>
<td>71.37</td>
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<td>14</td>
<td>Tailing - Magnesium</td>
<td>Magure Lypjan</td>
<td>15.13</td>
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<tr>
<td>15</td>
<td>Tailing - Chromate</td>
<td>Deve Gjakove</td>
<td>5.23</td>
</tr>
</tbody>
</table>
CONCLUSIONS

1. Kosovo has approved mining policy and strategy,
2. Kosovo has approved mining legislation in line with EU criteria,
3. Kosovo just approved the law on Strategic Investment which is suitable FDI
4. Kosovo is endowed with different mineral resources, with some proven reserves
5. Kosovo has mining tradition and also has the most youngest population in the Europe
6. Kosovo's Government determined the mining sector as a back-bone of the economy
7. Kosovo is open to further explore its mineral resources
Thank you!

Economy

Society

Environment

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Lignite mine
Remained wood in the lignite structure
Drilling point – Shlivova project
“Kosova B” PP
Tailing view in Zvecan