



Mineral Resources of Kosova

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- 4. Main Minerals in Kosova**
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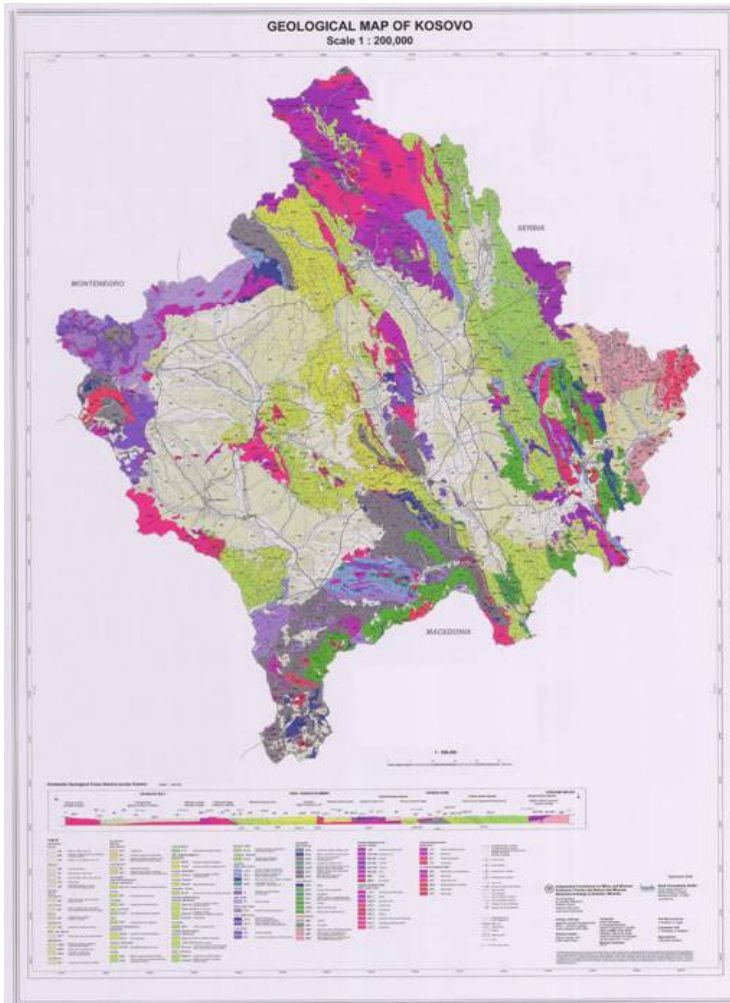
Kosova's Geography



- ❑ Located at the center of Balkans
- ❑ Surface - 10,887 km²
- ❑ Average altitude - 800 m above sea level
- ❑ Continental climate predominates
- ❑ Country's infrastructure is well developed
 - A fully developed road network does exist
 - There are several main roads connecting the large towns of Kosova and its territory with the neighboring countries
 - There are railway tracks to Macedonia and Serbia



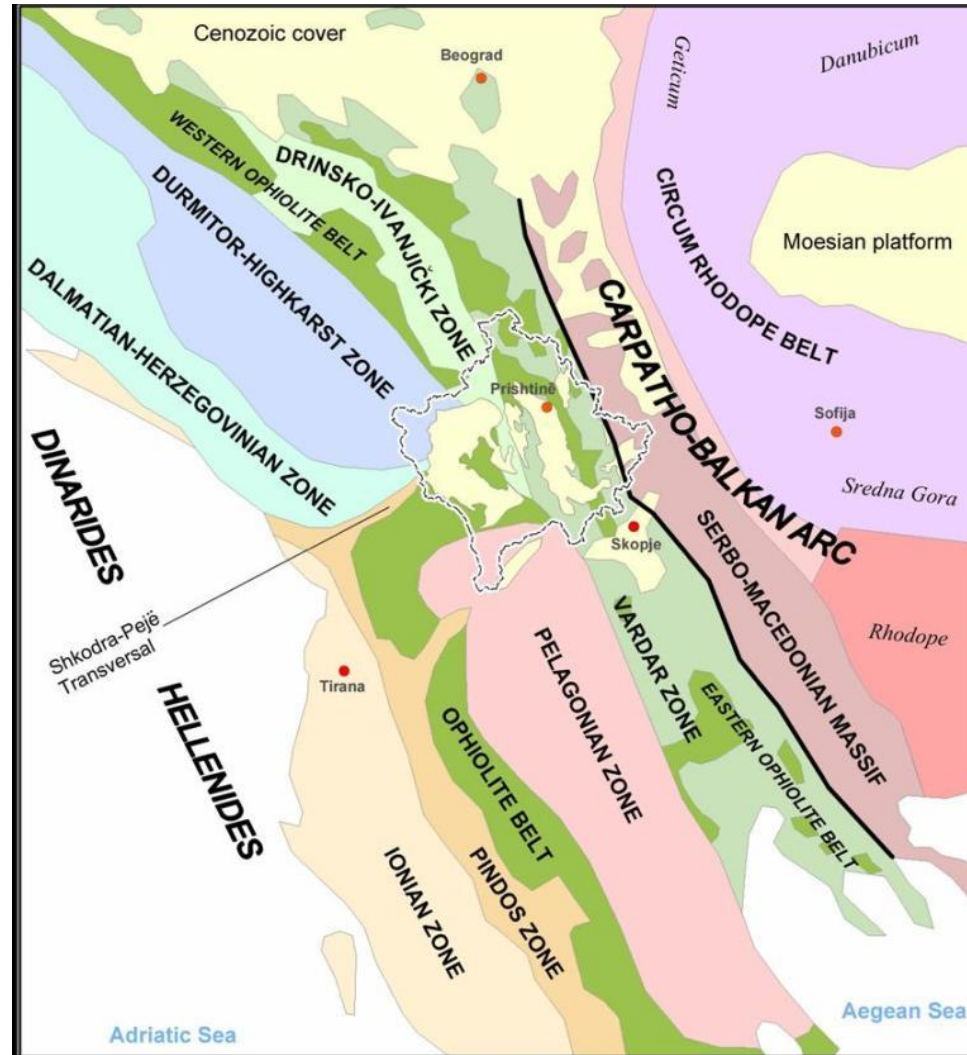
Geological-Geotectonic Setting



- ❑ Very interesting territory characterized by a variety of geological formations:
 - Rocks age ranges from old crystalline Proterozoic to Quaternary
 - Rocks type:
 - a) sedimentary,
 - b) magmatic, and
 - c) metamorphic



Kosova's Tectonic Complexity in regional aspect





Functioning of Mineral sector in Kosovo

- Competent institutions for mineral sector in Kosovo are:
 - Ministry of Energy and Mining of Kosovo
 - Independent Commission for Mines and Minerals



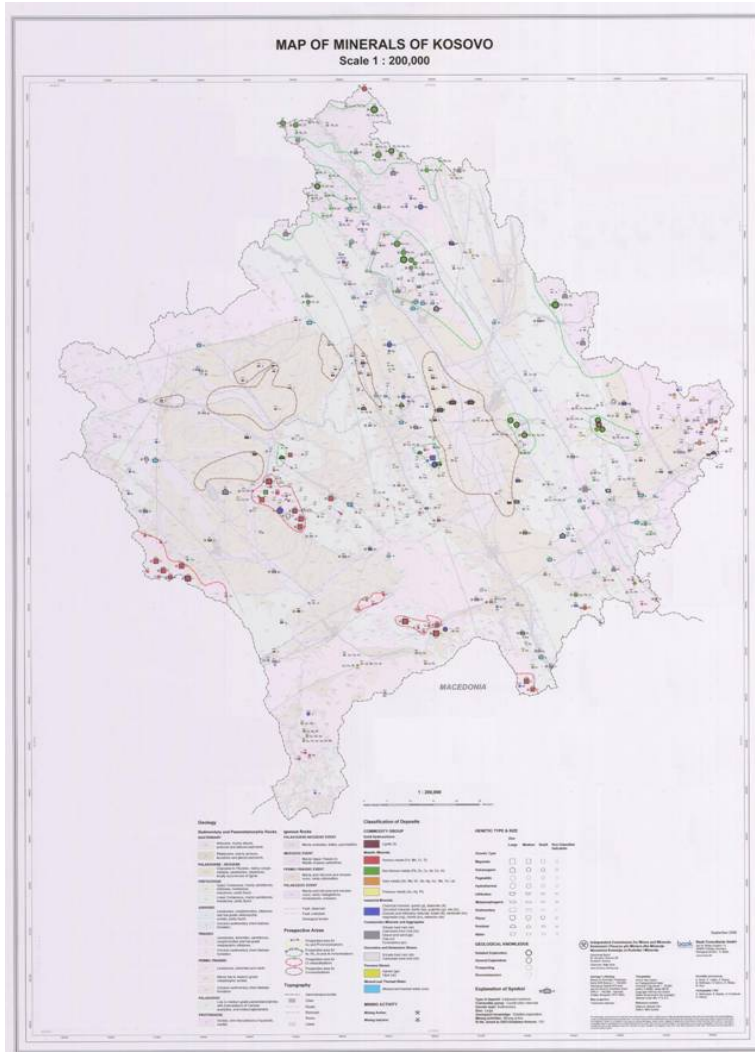
- Ministry of Energy and Mining responsibility's are:
 - *Prepares policies, strategies and legislative framework for mining and mineral sector development in Kosovo, and organizes work on their implementation;*
 - *Promotes mineral resources of Kosovo for research and exploitation;*
 - *Monitor the issuance by the independent mining regulator of licenses and permits for mining activities in Kosovo;*
 - *Supports creation of a favorable environment for private investment in the mining field.*



- **Functions of Independent Commission for Mines and Minerals:**
 - Independent Commission for Mines and Minerals is an independent regulatory body responsible for regulating and monitoring the mining industry in Kosovo;
 - The issuing, transfer, suspension and revocation of exploration and exploitation licenses and permits;
 - The issuing, suspension and revocation of permits and licenses related to the use of explosives in mining operations;



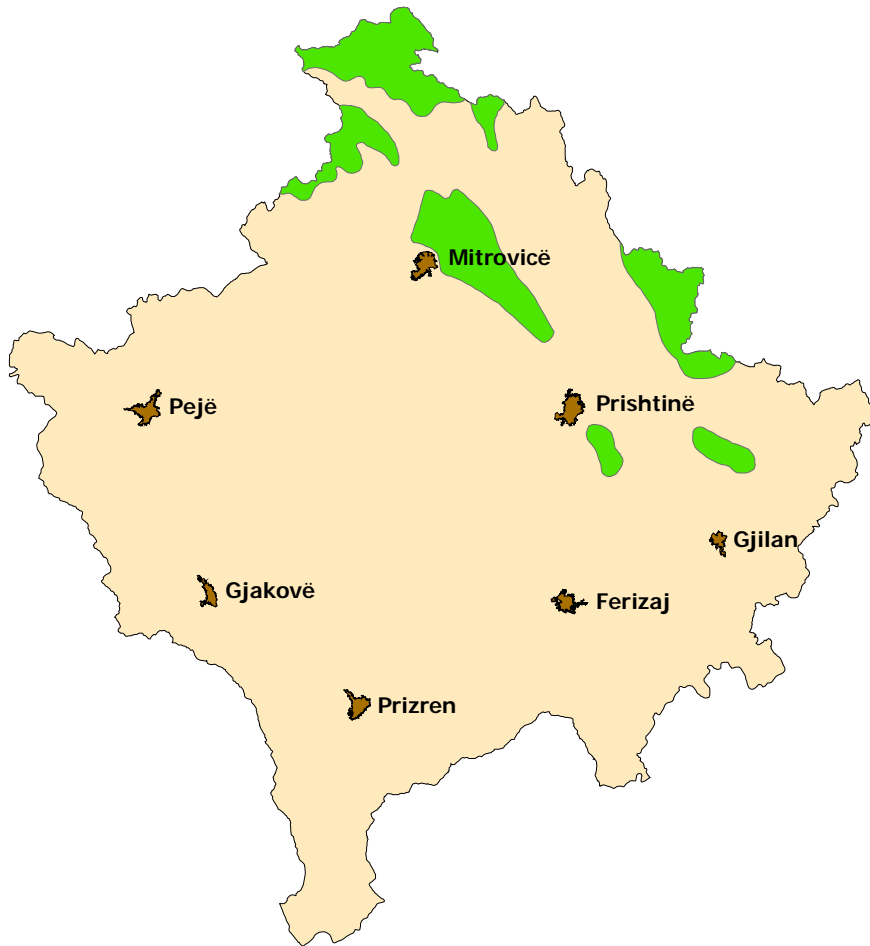
Main Minerals of Kosova



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



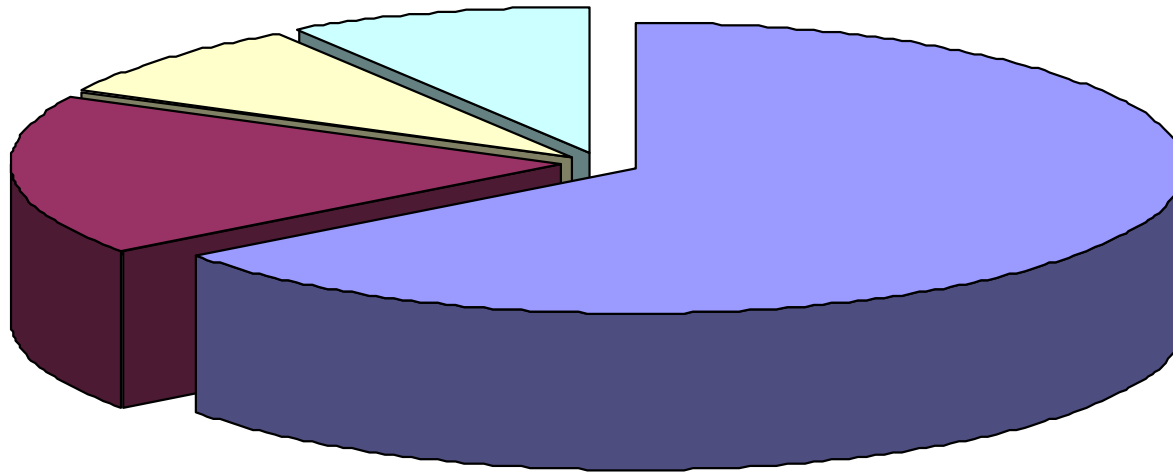
Lead and Zinc



- ❑ The most important lead and zinc mineralisations are found in the northern and eastern part of Kosovo
- ❑ They belong to the Trepça Belt of lead-zinc mineralisations, which extends linear for over 80 km in northern and north-eastern Kosovo and includes numerous mines and occurrences



Deposits of Lead-Zinc



■ Stantërg	31,469,200 t.	3.50% Pb, 2.87% Zn, 67 (g/t) Ag
■ Kizhnic -Artane:	9,510,024 t.	3.76% Pb, 4.87% Zn, 128 (g/t) Ag
■ Albanik (Leposaviç):	8,120,000 t.	7.55% Pb, 3.60% Zn, 107 (g/t) Ag
■ Quka e Batllavës:	4,700,000 t.	2.44% Pb, 4.92% Zn, 45 (g/t) Ag



Lignite

☐ Three main basins:

1. Kosova
2. Dukagjin
3. Drenica

1. 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 %





Lignite



2. Dukagjini Lignite Basin is the 2nd largest deposit in Kosova. It covers an area of 95 km².

- 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%



Nickel



- ☐ Silicate nickel deposits genetically belong to the decay of serpentinites
- ☐ In Kosova there are two ore deposits:
 1. Çikatova (Dushkaja and Suka), and
 2. Gllavica

Gllavica	– (A+B+C) of wet ore	– 6,240,000 t. Ni 1.463%, Co- 0.050%
Çikatova	– (A+B+C1) of wet ore	– 6,980,000 t. Ni 1.253%, Co- 0.063%



Chromium

□ The deposits and occurrences of chrome are mainly bound to the ophiolites of the Western Ophiolite Belt.

□ Locations of chromite occurrences are:

1. Deva region (44% Cr₂O₃)
2. Brezovica region (43% Cr₂O₃)
3. Rahoveci region (35-55% Cr₂O₃)
4. Goleshi region
5. Dobrosheci region



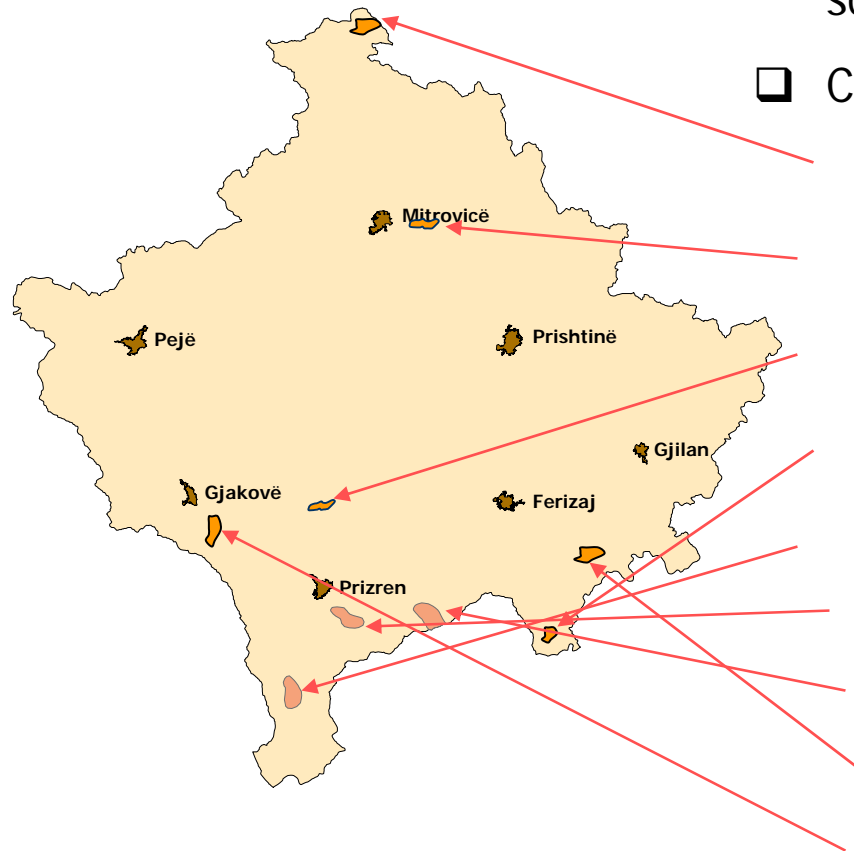


Copper

❑ Even though in Kosovo there are a lot of occurrences and mineralization of copper, the scale of exploration is low

❑ Copper mineralization have been found in:

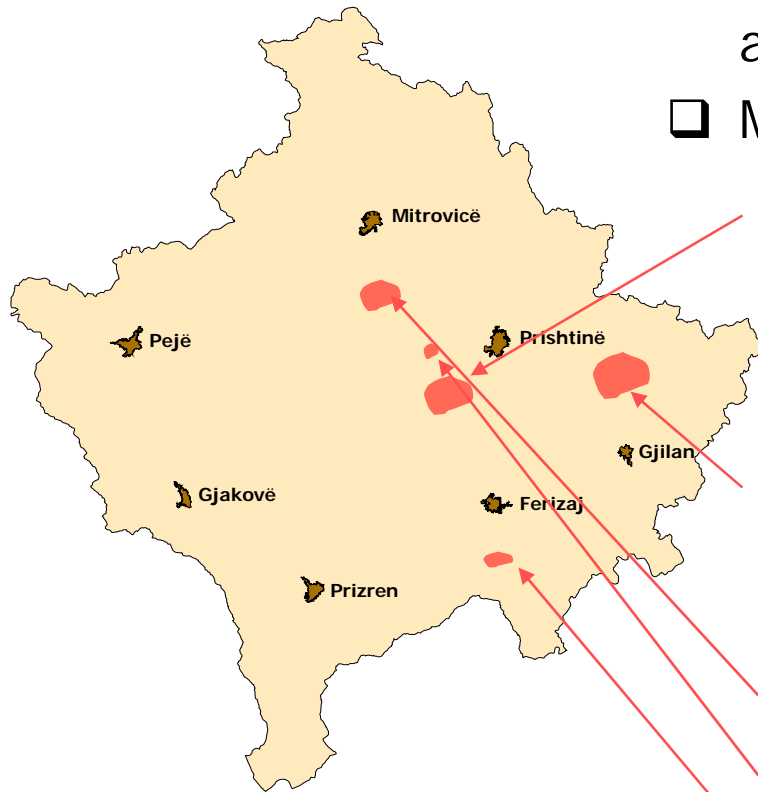
1. Suvo Rudishte (0.8%)
2. Banjskë
3. Guri i kuq (Rahovec) (1.20 - 2.73 % Cu)
4. Rexhance (Hani i Elezit)
5. Brod polymetallic mineralisations
6. Jabllanicë and Struzhë (Prizren)
7. Mushnikovë;
8. Binaq (Karadak)
9. Pashtriku (1% Cu) etc





Magnesite

- ❑ Most deposits and occurrences of magnesite appear to be within the Vardar zone
- ❑ Main magnesite deposits and occurrences are:



1. Golesh-Magurë,

(A+B+C1)	2,385,457 t
Minable	1,148,457 t
(C2)	2,500,000 t
2. Strezovc-Dardanë (Kamenice)

(A+B+C1)	1.653.683 t
Minable	1.488.314 t
3. Dubovc-Vushtrri
4. Dobroshec-Drenas
5. Shterpcë



Bauxite



- ❑ The most important bauxite deposit is situated at Gremnik mountain, Klina Municipality
- ❑ The quality of bauxite is:

Al_2O_3 (46-52%),

SiO_2 (1,0-4,5%),

Fe_2O_3 (33-38%),

TiO_2 (1,8-2,2%),

Reserves:

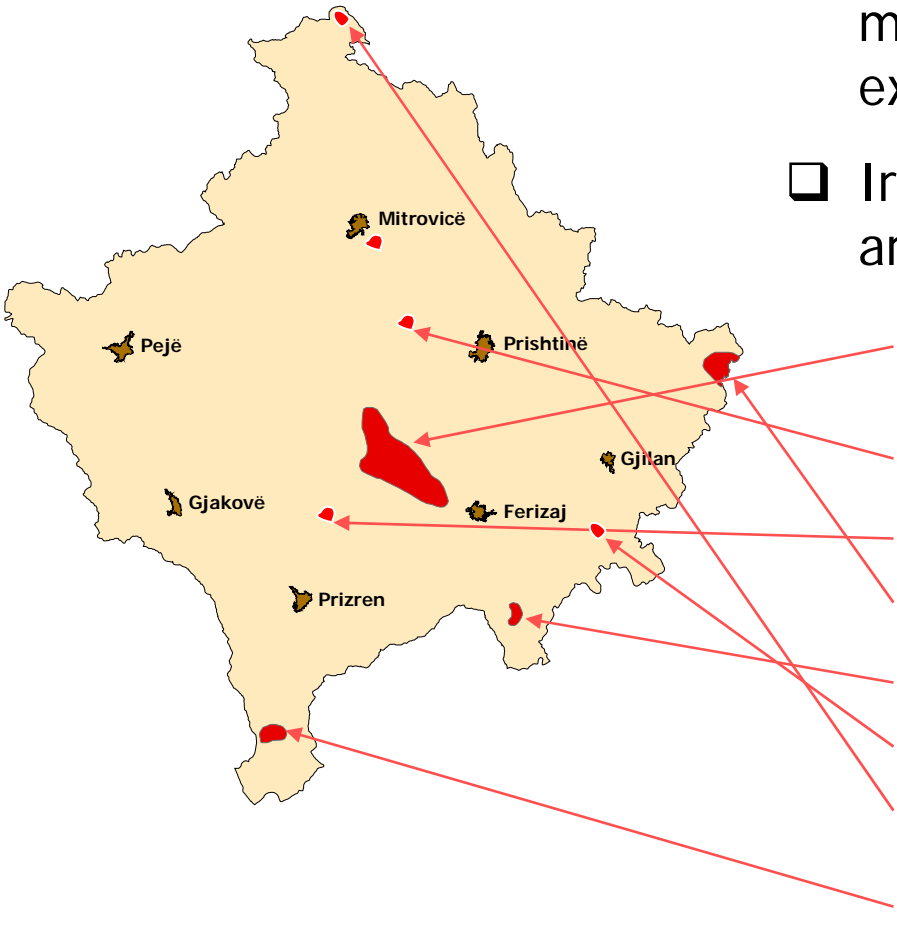
(A+B) 2,064,541 t,

(C₁) 1,000,000 t

Potentially 4,000,000 – 5,000,000 t



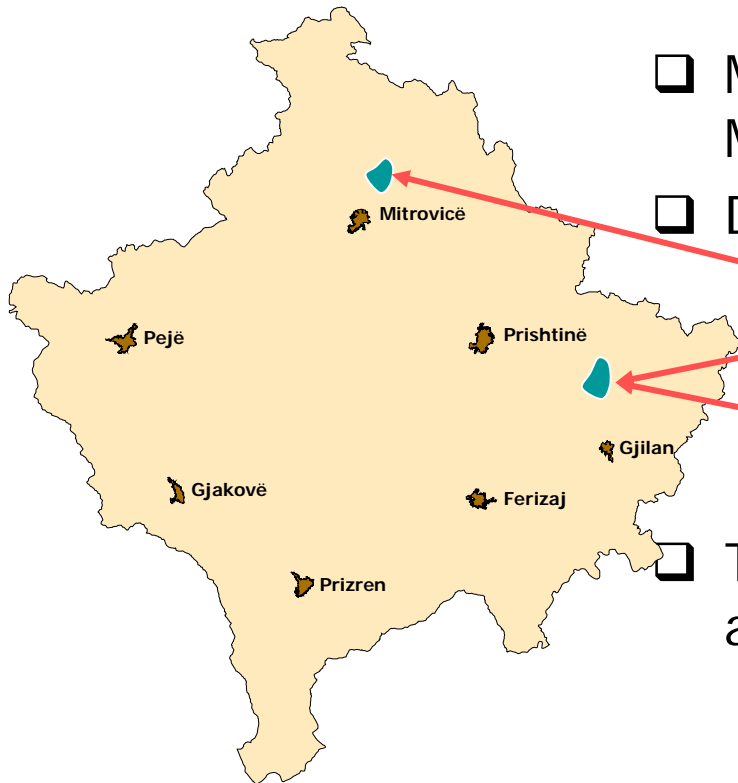
Iron



- ❑ In Kosova are a lot of occurrences and mineralization of Iron but the scale of exploration it was very low
- ❑ Iron ore occurrences and mineralization are discovered in:
 1. Carralevë-Petrashticë-Shtime (44%Fe, 2.5% Cr₂O₃)
 2. Tërstenik (40%Fe, 3.5% Cr₂O₃)
 3. Guri i Kuq (Rahovec)
 4. Sedlare (Kamenicë) (40% Fe)
 5. Ivajë (40% Fe)
 6. Binaç
 7. Shatoricë (40% Fe)
 8. Dragash



Manganese



Manganese occurs frequently of lead and Zinc Mineralization

Deposits and occurrences are located in:

1. NW of Vllahi (25%)
2. Artanë
3. Bolevc (40%)

The most important deposit belong to the North area of Artanë

The reserves are:

(B)	790,836 t
(C ₁)	596,350 t
(B + C ₁)	1,387,186 t (22.21 % Mn)
Potentially	around 5,000,000 t



- ❑ **Precious Metals** - Few occurrences of precious metals are known. Small amounts of gold do appear in the mine Artanë and in the adjacent area. Silver is a typical association in lead and zinc mineralization.

- ❑ **Platinum-Group Metals (PGM)** - Near the border of Albanian territory platinum group metal occurrences have been found. Analyses of these occurrences showed a positive correlation between platinum mineralization and chromites



Industrial Minerals

☐ Kosova is rich in industrial minerals,
including:

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





■ Technical programs:

- GeoScientific Maps
- Explosives Security System
- Kosova Quarry Plan
- Geochemical Survey
- Airborne Geophysical Survey
- Geographical Information System
- Website (www.ks-gov.net/mem; www.kosovo-mining.org)

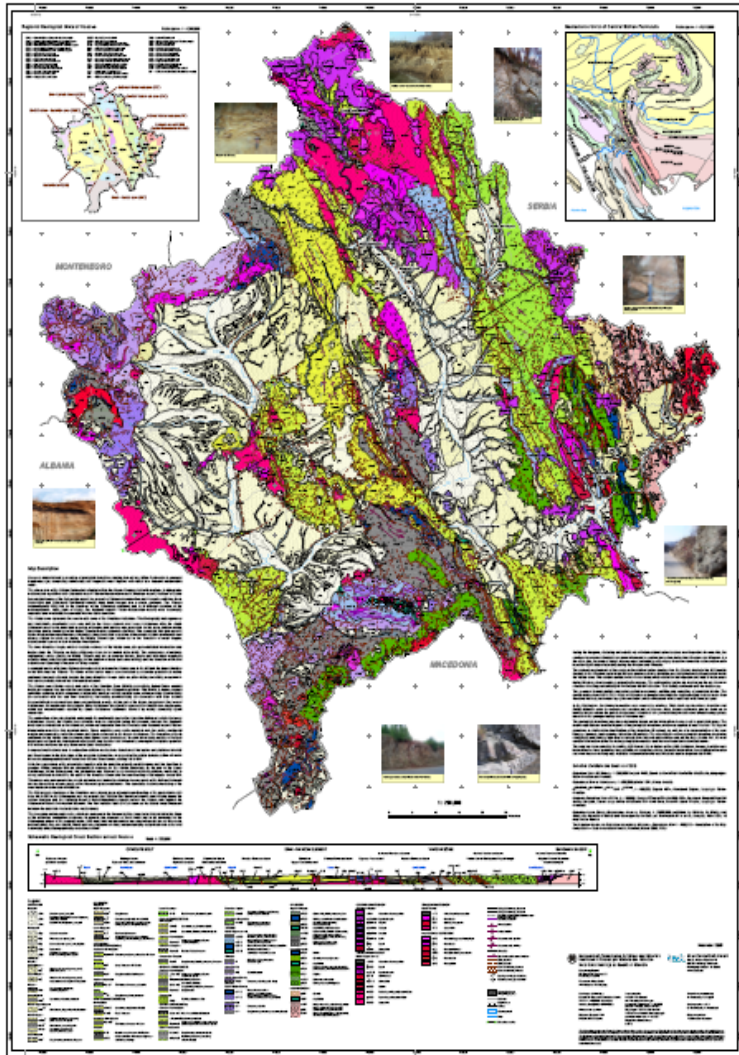


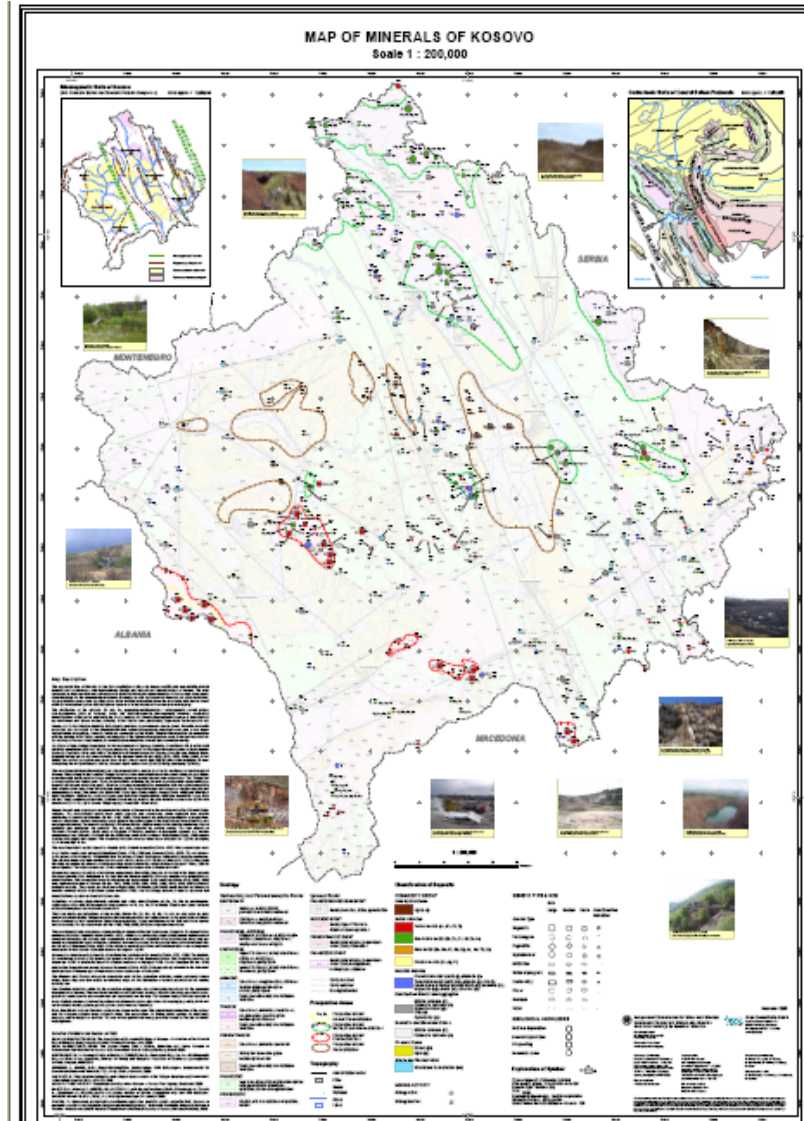
GeoScientific Maps

A series of 1:200,000 scale maps that show:

- Geological Map of Kosova.
- Tectonic Map of Kosova.
- Map of Minerals of Kosova.
- Hydrogeological Map of Kosova.
- Map of Mineral – And Thermal water of Kosova.
- Morpho-Orographical Structure of Kosova.
- Soil Map of Kosova.
- Satellite Imagery Map of Kosova.

GEOLOGICAL MAP OF KOSOVO
Scale 1 : 200,000



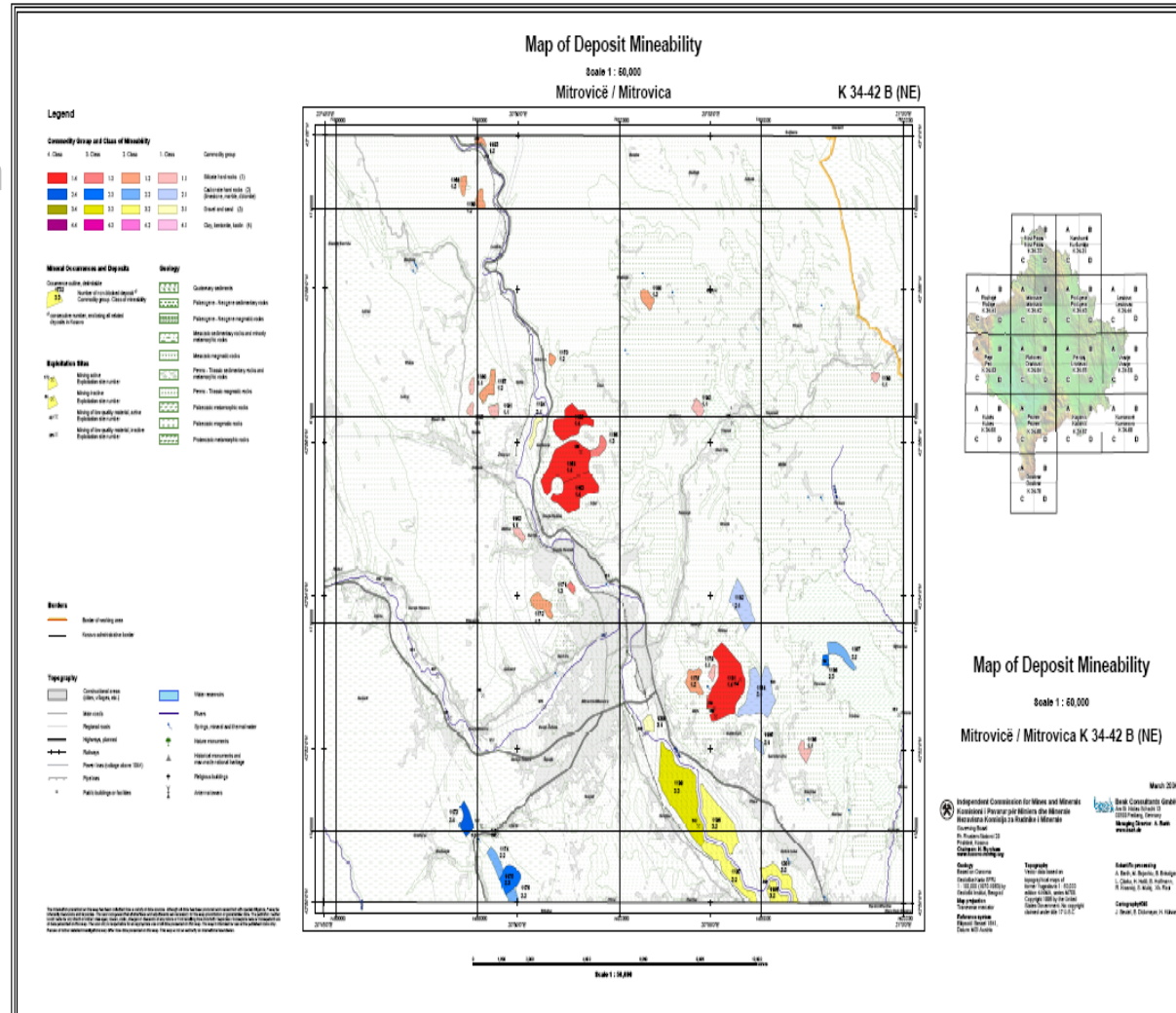




Kosova Quarry Plan

A series of 1:50,000 scale maps that show:

- Base Map of the captured Construction Raw Materials.
- Map of Non-Blocked Construction Raw Materials.
- Map of Deposit Mineability.
- Map of Deposit Licence Status.
- Map of Deposit Protection Value.





Geochemical Survey

Stream sediment sampling for analyzing 53 elements,
including:

- **Base Metals** of Zinc, Lead, Copper.
- **Precious Metals** of Gold, Silver.
- **Indicator** elements for mineralization.



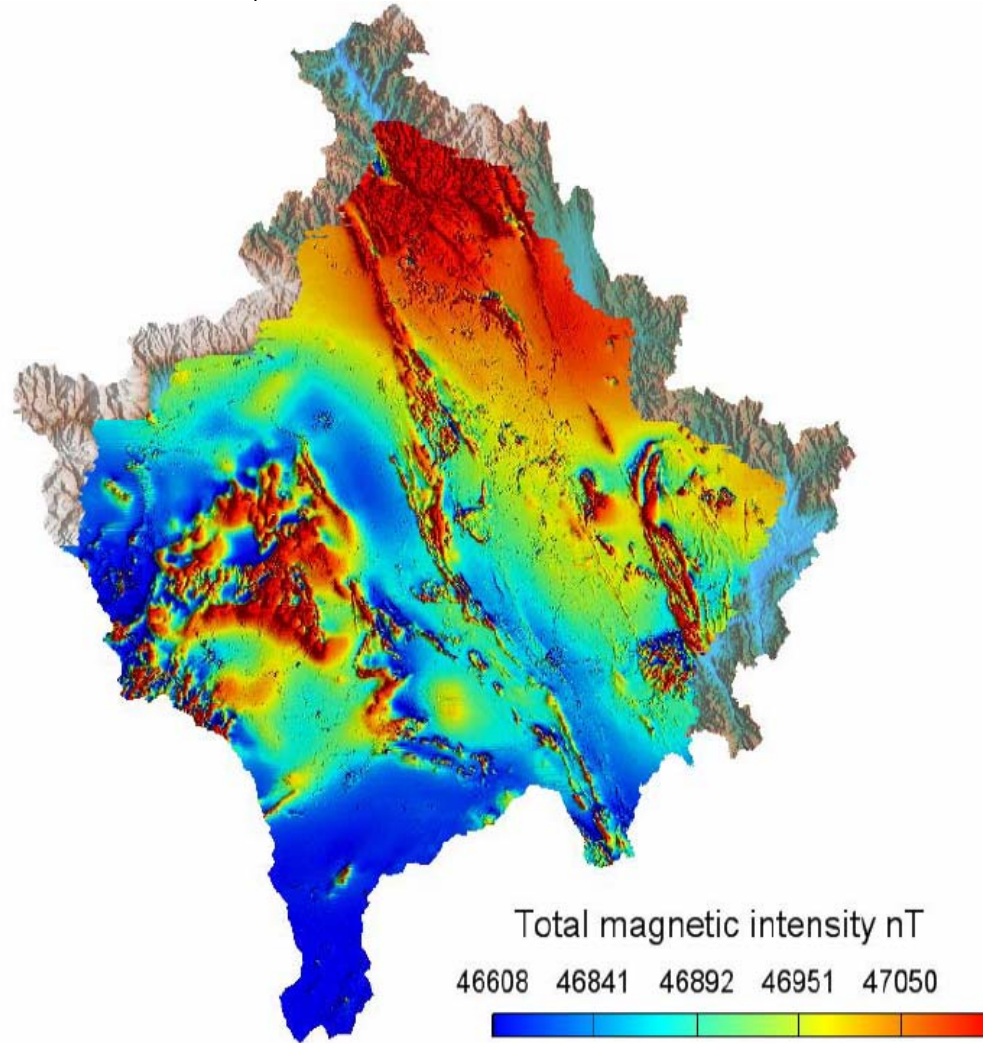
Airborne Geophysical Survey

Survey across Kosova to measure:

- Magnetics (Earth's magnetic field)
- Four-frequency Electro-Magnetics
- Radiometrics (Potassium, Thorium, Uranium)

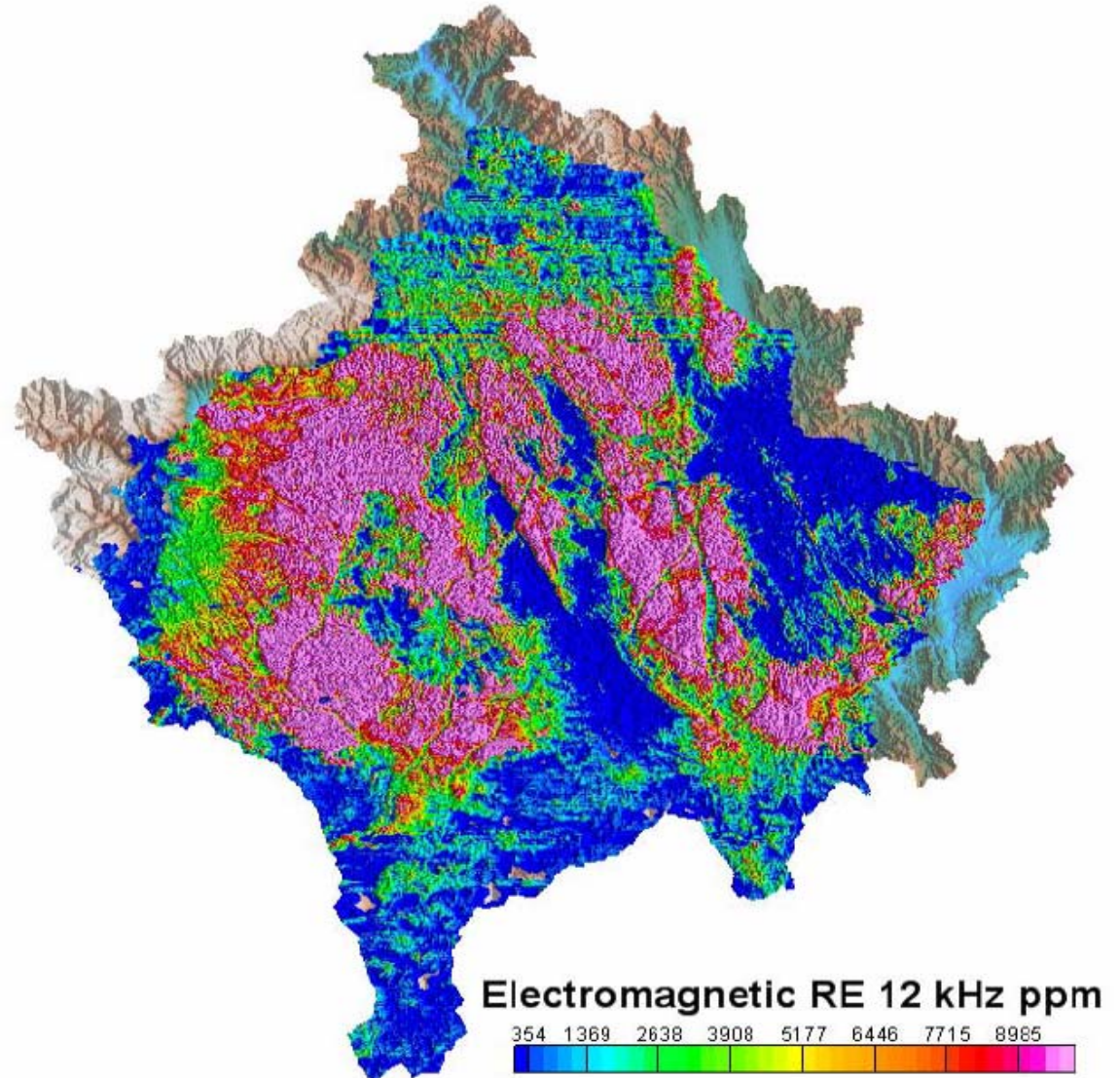


Magnetic Survey



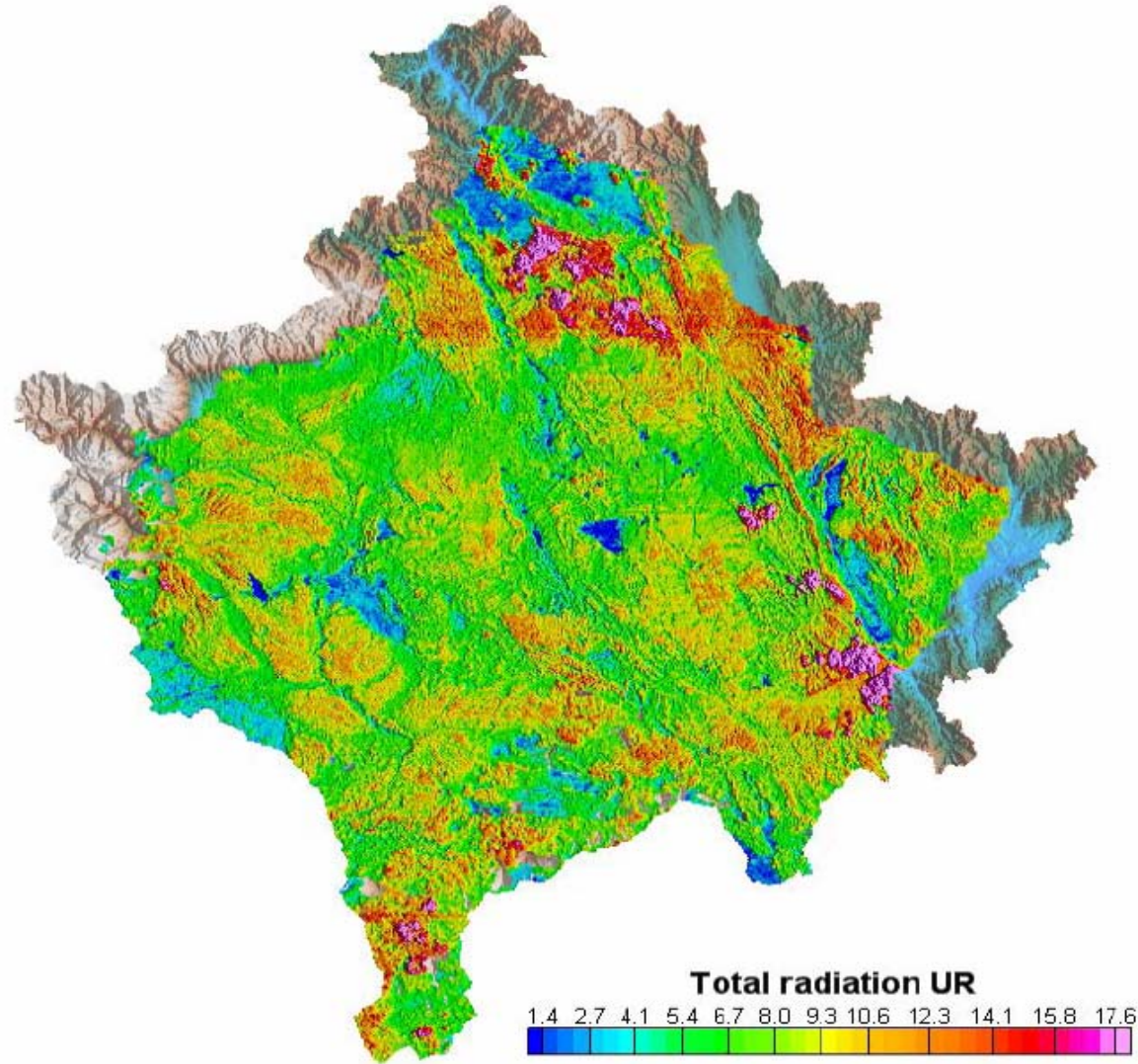


Electro-Magnetic Survey





Radiometric Survey





GEO-Database Kosova



Mining

Applications and Licences

Exploitation Sites

Processing Plants

Blasting Permits

Explosives Register

Economic Geology

Deposits and Occurrences

Kosovo Quarry Plan

Geology

Boreholes

Samples and Analytics

Geological Fieldwork

Map Legends

Legend for DGM100

Environment

Contaminated Sites

Administration

Reference Tables

Definition of Alerts

User Management

Database Change Log

Options



Metadata Database

Reports

Documents

Business Data

Persons and Companies

Parcels

Business Letters



■ Why to invest in Kosovo

- ***Kosova is rich in mineral resources, particularly lead, zinc, lignite, ferronickel, bauxites, chromate, etc.;***
- ***Existing mining industry represents great potential for private investment. Mining industry is one of our traditions;***
- ***Kosova is open to further explore its mineral resources;***
- ***Kosova has a very Investor Friendly Mining Regulation;***
- ***Low tax regime***
 - Customs duty on imports 10% - a reduced rate of 0% applies to imports of capital goods and agricultural production inputs
 - VAT rate is 15%, 0% taxes on exports
 - Personal income tax rates vary from 0-20%
 - 0% VAT and customs duty on exports
 - Corporate income tax 20%



■ ***Stimulating business environment***

- Free access to the market of the European Union and the markets of neighbouring countries;
- Simple and quick business registration procedure Modern and EU compatible legal framework;
- The Euro is the official currency, eliminating Euro zone currency risk

■ ***Law on foreign investments***

- National treatment investment regime guarantees unrestricted use of income. Prohibition of favouritism and discrimination. Protection against expropriation. 99-year land lease (UN guarantee)

■ **Population and labour market**

- Young and motivated population - 2 million population, 70% under the age of 35. Official languages: Albanian and Serbian. Other European languages mainly English, Italian, German, Swedish, French and Turkish.
- Highly flexible labour force, Average monthly wage 218 Euro, Low income tax - 5%. Mandatory contributions for individual pension saving accounts 10%



■ Mining Legislation

- UNMIK Regulation 2005/2 created the Independent Commission for Mines and Minerals (ICMM) in Kosovo. After declaration of independence Kosovo Parliament approved the law on Amending UNMIK Regulation 2005/2 on the Independent Commission for Mines and Minerals (ICMM) in Kosovo. This body regulates the mining sector and implements and enforces the Mining Law; handles exploration and exploitation licence applications; approves applications for, and controls the transport and handling of, commercial explosives; provides mines inspectorate services; terminates illegal mining activities; and collects royalties.



■ LICENCE TYPES ARE:

■ ***EXPLORATION LICENCE***

- ***Construction minerals:*** Valid for two years and may be extended for an additional two years. There is a maximum area of 250 ha per individual licence.
- **All other minerals:** Valid for two years and may be extended up to three times at two years per extension, accompanied by a 50% reduction in licence area. There is a maximum area of 100 km² per individual licence.

■ ***RETENTION LICENCE***

Construction minerals: A maximum of one year from expiry of the exploration licence. Any other materials: A maximum of five years from expiry of the exploration licence.



■ ***EXPLOITATION LICENCE***

- Construction minerals: This includes existing tailings exploitation, and must have an initial term of no more than 25 years, extendable for terms of up to 25 years. Any other minerals: This includes existing tailings exploitation, lasts for not more than 40 years and can not be extended.

■ ***SPECIAL OPERATIONS PERMIT***

- The term and scope of each special operations permit shall reasonably be established by the ICMM.

■ ***ARTISANAL MINING LICENCE***

- Construction minerals: Valid for two years and may be extended for a further two years. A maximum exploitation is permitted of 12,000m³ in any calendar year. An artisanal mining licence may be issued only to a municipality. Other permits issued by the ICMM include a crushing and milling permit, a processing plant permit (asphalt or concrete), a transport permit, an explosives import permit, a blasting permit and an explosives storage facility permit.



THANK YOU