MINERAL RESOURCES OF SLOVAKIA – IMPORTANCE OF MINERAL RESOURCES FOR THE SLOVAK ECONOMY

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SUSTAINABILITY OF MINERAL RESOURCES AND THE ENVIRONMENT
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Introduction

Minerals and mineral-based products are the basis of production for metallurgical, electricity, chemical, brick, ceramics, tile, glass and other industries in Slovakia. According to Slovak Minerals Yearbook, 2015 mining and quarrying of minerals (including extraction of crude oil and natural gas) contributed 319,8 million €, or 0.42 %, to Gross Domestic Product (GDP) at current prices in 2014.
Minerals and mineral-based products represent an important item of foreign trade of the Slovak Republic. Because of a large import volume of mineral fuels (crude oil, natural gas, hard coal) and metals (iron ore, zinc, materials for aluminium metallurgy) foreign trade balance has been permanently passive. Domestic consumption of these minerals is covered mainly by import. Production of industrial minerals (magnesite, limestone, dolomite, gypsum, bentonite and barite) covers in substantial volume domestic consumption.
• **1 128** mineral deposits
  - **639** reserved mineral deposits
  - **489** deposits of non-reserved minerals

• Total geological reserves reached **19 611 Mt** (up to 1 January 2015) thence **12 547 Mt** were industrial minerals reserves

• The most important reserved mineral deposits are protected by mining law to prevent restraint of future exploitation

• Protection is ensured by identifying of **protected deposit area**

• There were **314** protected deposit areas registered in 2014
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Informácia o objekte:

- **Typ**: Rudy
- **Miesto**: Zlaté a strieborné rudy
- **Názov ložiska**: Brochov I.
ENERGETIC MINERAL DEPOSITS IN SLOVAKIA
INDUSTRIAL MINERAL DEPOSITS IN SLOVAKIA
Geological License

- Geological licensing is regulated by Geological Act
- Application for geological licence has to include list of persons with valid expert’s qualification
- Mineral prospecting or exploration could be executed on exploration area only
- It is granted by Ministry for 4 years (period could be extended) (4+4+2+ x years)
- Yearly remittance for exploration area is 99, 58 € per every open km² for the first 4 years
- It rises to 199, 16 € after next 4 years and to 331, 93 € after next 2 years. During next years it is 663, 87 € per km²
- Payments are incomes of the Environmental Fund, 50 % of them directs to municipality on the cadaster of which exploration area lies
- Geological license is not required for surface prospecting of non-reserved minerals performed by land owners
Exploration areas

- New geological surveys of mineral resources are carried out in 79 exploration areas
- 20% of them is focused on metal exploration, 21.5% on industrial minerals and 11.3% on mineral fuels
Extraction of minerals is regulated by the **mining acts**

- The right to mine exclusive deposits has the organization which has got mining license and which a mining area has been determined to.
- Preferential right for mining area determination has the company, that exploration area was determined to and the research was carried out at their own expense.
- Yearly remittance for mining area depends on area size (km²).
  - The height of payment is **663,87 €** per every open km².
  - 20% of payments are incomes of state’s budget, 80% of them directs to municipality on the cadaster of which mining license overlies.
- Every mining subject exploiting minerals upon mining license has obligation to pay remittance for mined minerals (royalties).
- Royalties are incomes of the **Environmental Fund** (state’s budget).

**Mining Production**

- **432 mining areas were registered in Slovakia in 2015**
- **Exploitation was performed on 201 reserved deposits**
- **Mining production on reserved deposits was 25,1 Mt**
Mineral Fuels

- There are 98 mineral fuels reserved deposits registered in Slovakia in 2015.
- Lignite, brown coal, mineral oil, natural gas and uranium ore.
- Total geological reserves of them reached 1 145 Mt.
- About 465 Mt (41%) are considered as economic reserves.
- Domestic brown coal production has covered 80% of demand in the Slovak Republic.
- Value of imported commodities reached 37.3 million € in 2014; export was negligible.
- Domestic demand for crude oil (5.4 – 5.9 Mt) is almost completely satisfied by import from Russia (97% in 2014). Domestic production covers only about 0.2% of demand.
- Value of imported commodities reached 2.926 billion €.
- Demand for natural gas was satisfied mostly by import, mainly from Russia (79%). Value of imported commodities reached 1.773 billion €.
Metals

- Following the Register of Reserves of Mineral Deposits, state to 1 January 2015, 46 reserved deposits of metals were registered in Slovakia.
- Total geological reserves reached 326 Mt, from which only about 26% are stated as economic reserves at present.
- Gold was mined and processed only on Banska Hodrusa deposit in 2015. New reserves were estimated. Majority of gold concentrate production was exported (Belgium).
- There was no iron ore production in Slovakia in 2014, production stopped in 2008. Domestic consumption is satisfied by imports at present, mostly from Ukraine (55%) and Russia (25%). Value of imported ores and concentrates was 437 million €.
Industrial minerals

- Overall 302 reserved deposits of industrial minerals were registered in Slovakia
- Geological reserves reached 12,547 Mt (76% of total geological reserves), from which about 89% are classified as economic reserves at present
- Industrial minerals share on total mining production reached 43% (10,8 Mt)
- Demand for magnesite is completely satisfied by domestic production in Slovakia. Most of production is exported (Ukraine 41%, Czech Republic 12%, Russia 9%)
- Exported commodities value accounted for almost 73 million € in 2014.
Employment in the mining industry of Slovakia reached 6,184 employees in 2014,
33% of which worked in underground operations.
Employment had permanently decreasing tendency during last years.

1 mineral fuels
2 metals
3 industrial minerals
4 construction materials
MINING AND ENVIRONMENT

- In total (active and abandoned) 90 waste rocks stockpiles or heaps, from this amount 61 waste rocks stockpiles are situated in mining areas and 29 out of them, covering area of 2,556 km², volume 37,422,91 thousand m³
- The number of active waste rock stockpiles is 49, abandoned waste rocks stockpiles reach number 12
- In total 28 tailings ponds (storing tailings from ore processing) from which 13 are situated in extraction areas and 15 out of them, covering area of 2,976 km²
- There are more than 17,000 objects registered in the Register of old mining works
- 338 closed and abandoned mining waste storage sites (314 heaps and 24 tailings ponds registered in the Information System of the Waste from Extractive Industry
Information System of the Waste from Extractive Industry
Payments

- Companies which carry out mining activities, paid in the period under review all payments in a total of **3 923 434.93 €**, which is **307 334.82 €** more than in the previous year (**3 616 100.11 €**)
- The payments for mining areas were **489 946.87 €**, payments for mined minerals (royalties) **2 415 732.90 €** and payments for the storage of gases and liquids **1 017 775.16 €**. Fines on identified infringements of mining regulations were issued in the amount of **117 984 €**.

- Companies which carry out exploration work, paid in 2015 for exploration areas **1 113 402 €** and fines for violations of the geological act were granted in the amount of **2 850 €**.
The main objective of the Operational Programme Quality of the Environment is to promote the sustainable and efficient use of natural resources, ensuring environmental protection, active adaptation to climate change and promote energy efficiency and low carbon economy. In order to achieve this overall objective the investment strategy of the operational program including three basic thematic objectives has been proposed to:

1. Support the transition to a low-carbon economy in all sectors,
2. Support for climate change adaptation, risk prevention and risk management,
3. Protect environment and promote resource efficiency.
Thank you for your attention

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