

Czech Republic
National Reporting for CSD-18/19
Thematic profile: Mining

The Czech mining industry in 2006 – 2008

In the Czech Republic (hereinafter referred to as the "CZ"), there are currently approximately 300 active mining companies, carrying out the mining at about 600 locations of exclusive deposits and 180 locations of non-exclusive deposits. The deposits of minerals are either exclusive, i.e. owned by the state, or non-exclusive, which are parts of the land property owned by landowners.

About 32 000 employees are employed in mining activities, half of which quarries raw materials by underground methods. This concerns mainly the extraction of coal in the company of OKD a.s. The range of mineral resources is relatively wide. Geological coal reserves in the CZ are low and below 1 % of world-known coal reserves. Mineral deposits are estimated at 25 billion tonnes. In 2008, there were extracted approximately 56 million tonnes of coal, of which 12.6 million tonnes of bituminous and 43 million tonnes of brown coal (including lignite). Currently, only one deposit of bituminous coal is being extracted - Ostrava and Karviná parts of the Upper Silesian Basin. A part of deposits of bituminous and brown coal is blocked. It is the area of Beskydy (North-East Moravia) with bituminous coal because of environmental reasons, and the areas around the Most city (North Bohemia) because of "ecological mining limits" of brown coal.

Extraction of crude oil and natural gas reached its peak in the CZ in 2005, when about 306 000 tonnes of oil and 260 million m³ of methane and natural gas were extracted. Since then, there is a gradual decrease.

In the past, CZ was ranked one of the leading countries in uranium mining in the world. The price depression of uranium since the second half of 1980s led to the gradual phasing out of mining. Currently, it is extracted the last deposit Rožná and a remediation after the chemical extraction is ongoing in the locality Stráž pod Ralskem. A similar situation relates to the other ores, reserves of which are minimal. Non-profitability of their mining led to the closure of mining operations.

In the CZ, there are especially large reserves of construction raw materials - limestones and corrective additives for cement production, building stone, gravel and brick materials. Further details are available in the mining yearbooks and documents of the Geofond organization: <http://www.geofond.cz/en/Onas/dokument.html>

Mineral resources management is included in the strategic documents concerning the state raw materials policy and state energy conception.

Features of national mining codes or mineral industry code

Mineral resources mining in the CZ is governed by the Act No. 44/1988 Coll., on the protection and utilization of mineral resources (Mining Act); the Act No. 61/1988. Coll., on mining activities, explosives and the State Mining Administration (hereinafter referred to as " the Act No. 61/1988"), and the Act No. 157/2009 Coll., on the disposal of mining waste and amending certain laws. In addition, the Czech mining law is also influenced by the rules of the labour law, particularly the Act No. 262/2006 Coll., the Labour Code, and the Act No. 309/2006 Coll., for the regulation of other safety requirements and health at work in labour law relations. These acts address the basic requirements for health and safety at work and safety of operation.

The state keeps records of mineral resources reserves and projected resources, determines exploration areas and protected deposit areas. It determines a mining lease

area, which is an entitlement to extraction of a concrete, exclusive mining deposit. It also authorizes the extraction of deposits on the basis of a plan for opening, preparation and mining prepared by a company, while setting the conditions for the realization of mining activities. The state authorizes the liquidation of mining workings and quarries, supervises the safety of mining activities and the fulfilment of the conditions for the extraction stipulated in the legislation and the decisions of the state for authorization of mining.

A mining entrepreneur must have authorization to extract minerals, which is issued by the state after having proved that there is a qualified person responsible for professional and safety management of mining. The entrepreneur has to pay royalties from the mining lease area and extracted minerals and is obliged to create financial reserves for remediation, reclamation and mining damage.

Fiscal policies for investments and counteracting market fluctuations

In the CZ, there are no investment incentives regarding the mining industry. There are no programmes for the elimination of market fluctuations as well. Mineral resources mining is based clearly on the profitability of mining projects. Companies engaged in mining activities are mostly privatized with the exception of the uranium mining. On the other hand, the state took over the financing of the liquidation of old mining burdens caused by the state mining enterprises (extracting uranium, ores and partially coal) resulting from mining before the privatization – i.e. the liquidation of closed mines, heaps and tailing ponds; the revitalization of the landscape etc. In 1993 – 2008, 71 billion CZK was used (including social benefits for miners). It is estimated that the disposal of all defined old mining burdens will require about 115 billion CZK by 2040.

Regulations and mechanisms for compliance and monitoring

The legislation for mining activities or mining activities carried out by mining method is determined by the Mining Act, No. 61/1988 Coll., respectively the Act No. 157/2009 Coll. on the mining waste management. There are 47 executive regulations to the Act. The two acts set up conditions for access to the deposits of minerals and management of mineral deposits and the obligation to pay royalties and realization of remediation and reclamation, authorization for mining activities and the conditions for their realization. The Mining Act also lays down the competences of the State Mining Administration, control mechanisms, procedures for the removal of imperfections and penalties for violation of duties laid down by the legislation. The basic principle of control and monitoring of the legal regulation of mining consists of the following mechanisms:

- Continuous control activities of the State Mining Administration
- Issuing orders to remove imperfections
- Penalties for infringements of the rules
- Cancelling authorization and professional competence
- Investigation of obligatorily reported incidents (accidents, hazardous conditions) and taking measures to eliminate their causes
- Handling complaints from citizens
- Providing information to citizens under the Law on Free Access to Information
- Dissemination of the results of mining activities in the annual yearbook

Guidelines for artisanal, small and medium scale mining

In the CZ, the artisanal, small and medium scale mining definition is not used. Small scale mining carried out by a natural person is subject to the same rules as industrial mining carried out by a juridical person. All mining is projected for each individual mining

company separately and subsequently authorized and supervised by the bodies of the State Mining Administration.

Public/stakeholder consultation and participation in decision-making related to mining

The authorization to carry out mining activities shall be issued in the administrative proceedings. The authorization process is primarily governed by the Act No. 61/1988, with a supportive use of the Act No. 500/2004 Coll., the Code of Administrative Procedure. The Act No. 61/1988 Coll. in its Section 18 defines the group of the participants in the proceedings for an authorization of mining activities. The group includes the applicant, investor, owner of mining works and the citizens whose rights and legally protected interests or duties may be affected by the authorization, and a municipality of the district, which the mining activities are to be carried out in. In addition, a civil association with a competence for nature protection under the Act No. 114/1992 Coll. on nature protection and landscape can also be a participant in the proceedings.

The determination of mining lease areas under the Mining Act is similarly addressed, as the group of the participants in the proceedings is also defined in the cited Act, in its § 28, paragraph 2.

The participation of the public is also embedded in the Act No. 157/2009 Coll. In all administrative proceedings contained in the Act, the participation is adequately addressed.

The public consultations also take place:

- during the drafting phase of the preparation of land use plans at national, regional and local level. Draft documents, containing the location of minerals deposits and the determination of the areas for their future use, are published to be considered by the public. The comments are publicly discussed.
- at the stage of the processing and discussion of the documentation regarding the impacts of mining projects on the environment.

Public governance and transparency in the mining sector

The bodies of the State Mining Administration, i.e. the Czech Mining Authority (hereinafter referred to as „CMA“) and the District Mining Authorities are responsible for the public administration in the area of issuing mining licences, certification of professional competence for the mining activities or activities carried out by mining methods, levying royalties, issuing authorization for disposal of mining waste, approving the creation of reserves for remediation and reclamation and mining damage, authorizing the liquidation of results of the mining and control activities in the mining.

The Ministry of the Environment provides granting of exploration rights, keeping records of minerals deposits and certification of their existence, determination of the protected deposit areas and disposal of old mining workings. The amount of royalties for extracted minerals is determined by the Ministry of Industry and Trade, which also provides mining companies with grants in compliance with the Government’s programmes concerning the phasing out of the mining of ores, uranium and partially coal. The regional authorities, as concerned administrative bodies, are also involved in the mining, while executing their various powers in the field of construction law and environmental law.

The transparency of the public administration in the mining is guaranteed by several laws, such as the Act No. 500/2004 Coll. (specifically, Section 2 through 8), the Act No.

106/1999 Coll., on free access to information, or the Act No. 123/1998 Coll. on the right to information about the environment.

Best practices in the mining

a) Environmental Impact Assessment (EIA) and monitoring of all phases of mining operation

The issue of the impacts of minerals extraction on the environment is subject to a long-term monitoring in the CZ. Authorization to extraction of exclusive minerals deposits (about 99 % of all mineral resources) is issued in agreement with the bodies responsible for the environment.

The EIA process is governed by the Act No. 100/2001 Coll. At present, issuance of each mining licence for the extraction of an exclusive minerals deposit and authorization of the mining in the amount of over 10 000 tonnes/year is subject to the environmental assessment, which concerns almost all mining operations in the CZ. The EIA process in the CZ is different from the most EU member states – it is more stringent and is not executed by the authorities, which authorize the assessed activities, but solely by the authorities responsible for the environment. The EIA process is completed by issuance of the opinion of the Ministry of the Environment or of the regional authorities (in case of smaller mining of non-ore raw materials). The opinion determines the conditions for the preparation and realization of a project of minerals mining and is a basis for determination of the mining lease area and authorization for mining activities.

Based on the EIA documentation and the EIA opinion, the mining company shall prepare the technical documentation of mining. It is obliged to respect the conditions related to the environmental protection, which have been defined on the basis of the opinion while determining the mining lease area. During the own proceedings for authorization of mining, all conflicts of interest are settled up, including the conflicts in the field of the environment. The minerals mining is not authorized, if certain legally relevant facts are not proved in the proceedings, such as ensuring the necessary protection of nature and landscape; the exclusion of land from the agricultural or forest land area on the condition of an appropriate rehabilitation; and ensuring the protection of groundwater resources and the quality of surface water while releasing mining water.

To ensure the protection of the environment, there are determined conditions during the authorization process of mining. Their fulfilment is controlled by the bodies of the State Mining Administration. In addition, the Czech Environmental Inspection and the other bodies responsible for the protection of the environment control the compliance of the mining companies with the environmental law.

b) Private public partnership (PPP) for sustainable mining

The legal instrument for the implementation of PPP in the CZ is particularly the Act No. 139/2006 Coll., on the concession contracts and concession management (the Concession Act). This act is based on the assumption of a mutual cooperation between public and private sector, and on the requirement of mutual benefits and also on the concept of a reasonable risk-sharing within the partnership.

In the mining industry, the PPP is not widely used. This is, inter alia, due to the fact that the mining of exclusive deposits (which are owned by the state according to the law) is realized with the authorization to mining activities and simultaneously the company, which is mostly a private entity, pays royalties for the minerals extraction to the public budgets, defined by the law. The mining company is obliged to create reserves for remediation, rehabilitation and settlement of the mining damages. Dealing with the results of mining activities is primarily always the responsibility of the mining company.

Space for the development of PPP in the mining can be especially in the field of elimination of the results of mining operations or in the phasing out (or development) programmes for specific regions related to the mining activities.

c) Emergency response plans and preparedness at the local level

All companies engaged in minerals mining and under the supervision of the State Mining Administration are obliged to prepare emergency plans for each mine and also for the extraction and treatment of oil and natural gas. These plans are a set of measures and activities aimed at saving lives and protecting health of persons and protection of property in case of accidents. Emergency plans include, in particular, a description of ways to manage foreseeable types of accidents, such as mine fires; explosions of gas and coal dust; mine quake; tear of rocks and gas; cave-in of mining works; burst of water and sludge; serious ventilation failures; elimination of danger for the neighbouring mines; tasks of the head of accidents management and tasks of other employees; and tasks of mining rescue groups. All employees of mining companies are regularly instructed regarding the emergency plan.

Rescue activities are ensured by company mining rescue stations in each mine and by the emergency service employees of the Major Mining Rescue Stations, which are responsible for the respective mine in its area. There are four Major Mining Rescue Stations in the CZ, which are professionally specialized in the underground mines, surface mines, underground constructions and facilities, and extraction of oil and natural gas. They are part of the integrated rescue system of the CZ (together with firemen, police, military special units).

d) Risks assessment of mines and mining activities

On 23 July 2008, the Government Resolution No. 920 was adopted, endorsing the National Policy for Health Protection and Safety at Work in the CZ to meet the requirements of the EU Council Resolution of 25 June 2007 on the new Community strategy on health protection and safety at work for the period 2007-2012. In the spirit of this strategy, the National Policy set out the strategic objectives, which include, inter alia, more effective enforcement of the duties stipulated by the legislation in the field of safety. The basic priorities and objectives of the National Policy are the prevention of labour risks and its basic tools – risk identification and assessment and a rigorous system risk management. The priority no. 5 in the National Policy is the prevention of the existing, new and potential risks.

The regulation of the labour law relations between employees and employers according to the § 102 of the Labour Code determines the employers' obligation to create conditions for secure, safe and healthy working environment through an appropriate organization of health protection and safety at work and measures to prevent risks. Duties of each employer, therefore, include a continuous exploration of risks, identification of their causes and sources, and taking measures for their elimination. It is mainly the task of safety technicians who are dealing with the risk assessment in the companies under the supervision of the State Mining Administration.

e) Rehabilitation of affected communities and life-supporting ecosystems, including mine site decommissioning

The Mining Act determines a duty for the mining companies to carry out mining remediation and reclamation of the mining area. The scope and method of their realization:

- are subject to an assessment under the EIA process, which defines the nature of remediation and reclamation and conditions for their realization,

- are part of the application for determination of the mining area, which includes a project of solutions of comprehensive reclamation of the area affected by the mining,
- are determined by the conditions defined when excluding land from agricultural and forest land area,
- follow the land use plan of the municipality, if this land use plan defines a further use of the area affected by the mining,
- are defined in the mining project, which includes a technical project of remediation and reclamation and a proposal for the creation of financial reserves. According to the mining project, the mining is authorized.
- are defined in the project of disposal of mining works and quarries, After the authorization for the disposal, the concrete activities are performed according to the project.

The Mining Act determines a duty to create a special blocked account in a bank to save financial means for the realization of remediation and reclamation. The District Mining Authority approves the creation of the reserves and it also in agreement with the Ministry of the Environment approves the utilization of the reserves. The financial reserves are appropriated for the above-mentioned purposes. They must not, therefore, be used for other purposes and are protected from bankruptcy proceeding and seizure.

f) Technological, institutional and social initiatives for protecting the health of mining workers

To create conditions for a safe work and safe operation in the minerals mining and to eliminate work accidents and occupational diseases as much as possible, the CZ promotes system measures, which can be divided into:

The area of technology, such as:

1. A free equipment with modern protective tools and devices (currently there are ongoing large-scale innovation programmes in the underground mines, which are provided by the mining companies),
2. Research and development in terms of safety (in the mining) organized by the state under the auspices of the State Mining Administration,
3. Innovative programmes for the modernization of the machinery and technology equipment, especially in the underground mines, which is provided by the mining companies.

The area of the institutional initiatives, such as:

1. Regulation of safety at work and operation by the package of the legislative regulations for the various areas of mining work, which determine the requirements for a safe working performance. The areas are structured in the following order: starting training; gaining professional competence; the work performance in mining as such; final treatment of minerals.
2. Ensuring free training and retraining programmes, clear guidelines on issues of safety at work.
3. Establishing a monitoring system so that the names of all persons in underground mines, including the exact location, are always indicated.
4. Duties stipulated by the Labour Code related to risks exploration, such as prevention of major accidents and adverse safety conditions, including the instruction of workers regarding risks.
5. Ensuring the state, professional supervision of safety at work and operation in the minerals mining.
6. Legal duties to immediately inform the State Mining Administration about serious occupational injuries, serious accidents and hazardous conditions, including the duty to investigate these events.
7. Ensuring the state, professional supervision of sanitary conditions in the workplace, including prevention of occupational diseases and work hygiene.

And, finally, the area of the social initiatives, such as:

1. Longer holidays,
2. Free healing and recovery stays,
3. Provision with snack and beverages free of charge in the underground mines,
4. Regular medical monitoring of workers exposed to specific occupational risks in mining and preventive medical examinations,
5. Outplacement of workers in case of risk of occupational diseases, including financial compensation,
6. Agreeing on collective agreements between trade unions and mining companies' management.

g) Mine closure planning (land use plans and site rehabilitation, site safety)

After the mining activities are completed, a phase of rehabilitation begins, which includes e.g.:

- Mining damages of natural and juridical persons,
- Remediation and reclamation of affected areas,
- A comprehensive solution for the area,
- Measures related to mine gases emissions to the surface,
- Inspections and maintenance of major mining workings after their closure.

According to the Section 2, c) of the Act. No. 61/1988 Coll., the liquidation of mining workings and quarries is a mining activity, which can be carried out only by an authorized company. Further conditions are specified in the Decree No. 104/1988 Coll., as amended. Authorization from the District Mining Authority is required to safeguard and the liquidation of major mining workings and quarries. There are defined detailed requirements for individual plans to:

- safeguarding mining workings and quarries and the liquidation of main mining workings and quarries,
- safeguarding and liquidation of wells and probes,
- safeguarding and liquidation of a leaching field,
- safeguarding and the disposal of specific impacts in the Earth's crust,
- safeguarding and disposal of old mining workings.

The liquidation is authorized by the State Mining Administration in accordance with the technical documentation.

The Act No. 157/2009 Coll. effective from 1 August 2009 determines additional requirements for closure of mining operation (heaps and tailing ponds). There are distinguished two time periods:

- 1) the first - from the end of the operation of heaps and tailing ponds (depositing of mining waste is finished), followed by reclamation of land and rehabilitation of the areas, including monitoring,
- 2) the second, which begins after the decision on the declaration that heaps or tailing pond are closed.