

MINING

A.1. POLICY AND REGULATIONS

A.1.1. FEATURES OF NATIONAL MINING CODES OR MINERAL INDUSTRY CODE

The main feature of German mining legislation is its comprehensive structure, implementing integrated risk prevention through an intermedia approach with strict requirements on concessions, health and safety, environment and other issues as well as differentiated mechanisms for compliance and monitoring. This approach directly implements the challenges of the concept of sustainable development, taking into consideration the three pillars of environmental protection, social development and economic development, with each of these three policy areas being mutually supportive of the others.

Mining legislation in Germany consists of the Federal Mining Act of 1980 and a number of Mining Ordinances on technical and procedural issues, e.g. the Federal General Mining Ordinance of 1995, the Health and Safety Mining Ordinance of 1991, the Ordinance on the Environmental Impact Assessment of Mining Projects of 1990. These provisions set up a uniform mining law for all important mineral resources in the form of a comprehensive law covering all aspects of mining, including health and safety and environment, supervised by one single administration (one-stop shop).

This comprehensive system has been strengthened in the past 30 years several times with the transferring into national German legislation of new European legislation on concessions, environment and health and safety in the extractive industries, e.g. the transposition of the EU Environmental Impact Assessment Directive 85/337/EEC and the EU Mining Waste Directive 2006/21/EC for the mining sector within the procedures of mining law, rather than in general environmental law through an amendment of the Federal Mining Act and an additional Ordinance.

A.1.2. FISCAL POLICIES FOR INVESTMENTS AND COUNTERACTING MARKET FLUCTUATIONS

As regards fiscal provisions, the German Federal Mining Act contains detailed rules on royalties for the extraction of mineral resources, setting them at a standard percentage of 10% of the market value. This percentage can be reduced or raised by Ordinance if so required in order to achieve any of the following aims as set out in the Act: preventing an overall economic imbalance, preventing the risk of a distortion of competition among the companies engaged in exploration and exploitation, assuring the adequate supply of the market in raw materials, improving the exploitation of deposits or protecting other interests of the national economy. Apart from this specific levy, taxes for the mining industry are, in principle, subject to the general provisions of the tax and revenue law.

A.1.3. REGULATIONS AND MECHANISMS FOR COMPLIANCE AND MONITORING

As regards regulations and mechanisms for compliance and monitoring, German mining law contains a very dense system of health and safety and environmental requirements implemented and enforced through a system of administrative acts and a whole set of mechanisms for compliance and monitoring. Mining activities are subject to a two-step authorisation procedure:

- the granting of an exploration or exploitation licence that confers the exclusive right to explore for or exploit the mineral resources specified in the licence and
- the approval of an operations plan for concrete mining operations ranging from the beginning of exploration to the reclamation of land surfaces used by mining, e.g. shaft sinking, waste tips and so on.

In the operations plan, the operator must describe the scope, the technical execution and the duration of the project. Based on this description, the mining authority will study the project with respect to operational safety and protection of workers, surface protection, prevention of public damage and other issues. There are four kinds of operations plans:

- the skeleton operations plan (Rahmenbetriebsplan)
- the main operations plan, valid for two-year terms (Hauptbetriebsplan)
- the special operations plan (Sonderbetriebsplan)
- the mine closure operations plan (Abschlussbetriebsplan).

As regards mine inspection, the mining authority monitors compliance with the provisions of mining law. It can order implementation of the measures needed to implement mining law and counter risks. Other means of enforcing the provisions of the law, regulations and attached conditions on a licence holder or other relevant person are fines and penalties as specified in the Federal Mining Act.

The Federal Mining Act and the Federal General Mining Ordinance also provide for the possibility of a financial guarantee to ensure the fulfilment of the obligations under mining law, especially restoration. As accurate surveying and reliable drawings of the whole mine are essential for reasons of safety, the mine operator must have drawings (mine plans) made and updated by a qualified surveyor for every extraction working.

A.1.4. GUIDELINES FOR ARTISANAL, SMALL AND MEDIUM-SIZED MINING

The above requirements and procedures apply to all mine operations irrespective of their size. Therefore, there are no specific provisions for artisanal, small and medium-scale mining operations.

A.1.5. PUBLIC/STAKEHOLDER CONSULTATION AND PARTICIPATION IN DECISION-MAKING RELATED TO MINING

A consultation and participation process for decision-making related to mining is already provided for at the licence granting level. Before deciding on an application for an exploration or exploitation licence, the mining authority must consult the authorities safeguarding public interests. If the operations plan touches the field of competence of other authorities or of the municipalities as planning authorities, these bodies must be consulted before approval of the operations plan.

For major mining activities (e.g. opencast mining of more than 25 ha) the skeleton operations plan is subject to an environmental impact assessment with the consultation of the broad public.

A.1.6. PUBLIC GOVERNANCE AND TRANSPARENCY IN THE MINING SECTOR

The procedures set out above guarantee a high level of public governance and transparency in the German mining sector.

A.2. MINING BEST PRACTICES

A.2.1. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) AND MONITORING OF ALL PHASES OF MINING OPERATION (EXPLORATION, PROJECT DEVELOPMENT, MINE OPERATION, AND MINE CLOSURE)

The Federal Mining Act and the Ordinance on the Environmental Impact Assessment for Mining Projects of 1990 integrate the environmental impact assessment (EIA) into the skeleton operations plan procedure with specific provisions taking into account the dynamic character of mining activities. The Ordinance of 1990 contains a list of major mining projects that are subject to an EIA, e.g. opencast mining with a surface of 25 ha or more, tips of an area of 10 ha or more. In order to guarantee the participation of the public and of all stakeholders, the approval of a skeleton operations plan with an EIA by the mining authority is subject to a formal plan approval procedure according to the general German Administrative Procedure Act, with a concentration of all involved parallel permits (one-stop shop). This procedure allows all issues involved to be examined with all administrations and stakeholders and gives the investor the necessary legal security.

As regards the monitoring of all phases of mining operations (exploration, project development, mine operation, and mine closure), the German mining law contains a very dense system of mechanisms for compliance and monitoring enforced by the mining authority through a differentiated system of administrative acts and regular controls.

A.2.2. PRIVATE-PUBLIC PARTNERSHIP (PPP) FOR SUSTAINABLE MINING

The above provisions set out the legal framework for assuring maximum sustainability in the mining sector. With respect to the operation of mining activities, the existing legal framework assigns responsibility for mining activities to private companies. The State itself normally plays no active role in these activities but assures compliance with the legal framework.

A.2.3. EMERGENCY RESPONSE PLANS AND PREPAREDNESS AT LOCAL LEVEL

According to the provisions of the German Federal Mining Act, the organisation of mine emergency and rescue arrangements is the task of the mines operator. He is especially obliged in the case of situations or events occurring in the enterprise liable to create or having created direct hazards for the lives or health of employed personnel or third parties, to take the appropriate measures to avert hazards or rescue accident victims.

In addition to these individual emergency arrangements, mines operators running an underground mine connected with inflammable or explosive installations or with installations liable to produce unbreathable or poisonous gases or vapours must form, maintain or contribute to main stations for mines rescue for carrying out common obligations in the field of mines rescue. At present, there are five main stations for mines rescue coordinated by the German Committee for Mines Rescue, covering the whole territory.

A.2.4. RISK ASSESSMENT OF MINES AND MINING ACTIVITIES

The Federal Mining Act of 1980, the Health and Safety Ordinance of 1995 and the Federal General Mining Ordinance of 1995 contain detailed provisions on risk assessment of mines and mining activities, transposing the relevant 11th and 12th Individual EU Directives and ILO Convention No 176 Concerning Safety and Health in Mines. These provisions comprise concrete orders and prohibitions concerning both the deployment and the behaviour of staff and the utilisation of equipment.

Thus, a person employed in an underground mine is allowed to work only when he or she has passed a medical examination undertaken at the employer's expense. Follow-up examinations ensure continued monitoring of the physical state of the person employed. The reduction of the normal working time at hot working points in underground mines prevents any health-damaging overexertion in these climatic zones in accordance with the Federal Mining Ordinance on Climate of 1983. Each person employed underground has to wear a filter self-rescuer. Some types of equipment that are used in larger numbers may only be used when a type approval has been issued confirming the operational safety of a random sample. Where mining regulations do not contain any particular provisions for the protection of employees, the general workers' protection regulations such as working time regulations, laws on the protection of minors, on hazardous work materials and so on will apply in the mining industry.

A.2.5. REHABILITATION OF AFFECTED COMMUNITIES AND LIFE-SUPPORTING ECOSYSTEMS, INCLUDING MINE SITE DECOMMISSIONING

Mining activities are necessarily associated with impacts on the surface. This applies particularly to the temporary utilisation of the surface by opencast mines, but also for long-term or permanent utilisation, such in the case of spoil heaps. According to the Federal Mining Act, mining activities do not end with the extraction of mineral resources

and tipping of the overburden. Rehabilitation represents an integral part of mining activity. Mines operators are required under law to rehabilitate worked-out sites.

The interests of affected communities and ecosystems are taken into account at a very early stage in the planning phase before extraction begins. In general, regional planning procedures must be carried out in advance of the development of mining activities. In the case of lignite opencast mining extending over very large areas, a specific lignite extraction plan addressing the specific environmental, socio-economic and related issues has to be submitted in addition to the operations plan. This lignite extraction plan is prepared by the lignite extraction committee. The committee's work is influenced by political aspects, as most members of the committee are elected representatives of the communities involved. The lignite extraction plan must define the working boundaries, coordinate changes in infrastructure required by the working, find resettlement territories and state basic rehabilitation measures.

A.2.6. TECHNOLOGICAL, INSTITUTIONAL AND SOCIAL INITIATIVES FOR PROTECTING THE HEALTH AND SAFETY OF MINING WORKERS

The German government actively supports various national and international technological, institutional and social initiatives for protecting the health and safety of mining workers, e.g. through active cooperation in the Standing Working Party for the Mining and other Extractive Industries (SWP) of the EU Advisory Committee on Safety and Health at Work (ACSH).

A.2.7. MINE CLOSURE PLANNING (LAND USE PLANS AND SITE REHABILITATION, SITE SAFETY, DECOMMISSIONING, WASTE DUMPS AND TAILINGS, SITE WATER MANAGEMENT, OFF-SITE INFRASTRUCTURE, COMMUNITY SOCIO-ECONOMIC PROGRAMMES AND EMPLOYEES)

Mine closure planning is an integral part of the authorisation procedure. Even before mineral extraction begins, the operator has to state in his operations plan the measures required for surface reclamation. If these measures are not sufficient, the mining authority may only approve the extraction with corresponding reservations, or not at all. The surface affected must be rehabilitated as soon as the extraction work permits. Where on the one side of the mine the overburden is removed and the mineral extracted, reclamation measures are immediately taken on the other side after extraction and overburden tipping. Rehabilitation needs not necessarily mean restoring the surface to its original state. If the proposed subsequent use is landfill, the obligations are fulfilled by forming the required cavity and making it safe. With regard to infrastructure measures, roads and other traffic connections removed by the mining activities are not simply rebuilt in the same place; rather these measures are integrated within an overall package for reclamation of the area in accordance with the relevant land use plans.

The precautionary and organisational measures for mine closure planning including land use, site rehabilitation, site safety, decommissioning, waste dumps and tailings ponds, site water management, off-site infrastructure, community socio-economic programmes and so on are laid out in detail in the Federal Mining Act and the relevant Mining Ordinances and specified in the individual operations plans. The recently amended

Federal General Mining Ordinance of 1995 contains detailed provisions on requirements relating to site safety, decommissioning, waste dumps and tailings ponds and related issues, thus transposing the EU Mining Waste Directive 2006/21/EC and integrating the standards of the Directive into the operations plan procedure.

After mining, a separate mine closure operations plan specifies all the details, especially with regard to land use, site safety, waste dumps and tailings ponds, water management, infrastructure and other issues, on the basis of the existing policies and technical possibilities. With respect to mining closure planning and site water management, a particular problem in the Ruhr District, is the need to maintain the drainage and flow of rivers. Over the course of time, coal mining resulted in subsidence of up to 20 metres in wide parts of this area. To ensure proper drainage under such conditions it has been necessary to deepen or raise many parts of the water courses. Large parts of the district would be one vast area of inundation due to subsidence if the flow of the Emscher river, the Lippe river and their small tributaries were not maintained by pumping water within artificially heightened embankments or deepened water courses. Also the drainage of the sewage systems had to be converted to a pump system. All this has been done within the last few decades.

Practical experience of reclamation and restoration has shown that utilisation and devastation by mining activities present not only a burden or danger to affected areas but also an opportunity to correct negative developments and to plan in accordance with the expectations of the population and more freely than one could in a grown landscape.