

Extraction industries

For reasons linked to the geography of France, the situation of the raw materials sector seems highly contrasted depending on whether we talk about metallic substances (iron, nickel, bauxite, etc.), industrial minerals (barite, fluorine, kaolin, silicon, talc, limestone, gypsum, etc.) or construction materials (granulates, hard rock, etc.). The industrial mineral and construction materials sector is a dynamic part of the French economy, creating added value and jobs. Apart from the nickel activities in New Caledonia and gold in Guyana, the minerals and metals sector in metropolitan France focuses primarily on the rehabilitation of former mining sites. The metallurgy business is however still very important, even though it relies on procurement from elsewhere.

Non-energy mineral raw materials such as construction granulate, are consumed directly or indirectly by all activity sectors in more or less processed forms. Regular, sure and competitive access to production sources of those materials for French companies is an important element in terms of their strategic development against a backdrop of the competitiveness of the whole of the French economy. The guarantee of access to certain resources is also important for the very political independence of the country and its capacity to defend itself.

The action of the public authorities in this area is based on four major orientations:

- recovery of natural resources;
- promotion of recycling;
- security of supply;
- international cooperation policy.

The period 2008-2009 was marked by a downturn in raw material prices. Depending on the metals, this occurred between the first and second quarters of 2008 as the crisis was emerging. It saw a very substantial drop in prices: -60% for cobalt, -45% for nickel, -30% for platinum and zinc, given as average values for the six months of 2009 compared to average 2008 prices. This enormous drop was linked to a marked slowdown in global economic activity and in particular in the automobile sector, which is a high consumer of metals, and also the property crisis. Whilst markets had been developing since 2003 in a climate of shortage maintained by the possibilities of sustainable and sustained global economic growth, the "subprimes" crisis suddenly slowed the economy and demand for raw materials, with markets suddenly having plenty of excess supply on their hands. This downturn required heightened vigilance concerning the sector's policy.

Education

A group of French mines schools include seven schools dotted around France (Albi, Alès, Douai, Nancy, Nantes, Paris, Saint-Etienne) all under the auspices of the Economy, Finance and Industry Ministry (with the exception of Nancy which is attached to the National Education Board). They share a joint teaching and research approach dedicated to industrial development. They train staff and contribute to keeping skill levels high. They are amongst the most prestigious French *Grandes Écoles*.

National judicial frameworks

The extractive mining activity is controlled by the mining code and the environment code.

French mining law has a number of specificities. The State alone can confer the right to exploit a mine upon the operator, under conditions which are fixed by law, with mining substances being considered as an element of national wealth. Also, it is a

hybrid legislation, certain aspects of which are as much in the domain of public law as private law. Mining law concerns the substances of mines which belong to the nation, whilst so-called “quarries-extracted” substances (materials and granulates and certain minerals) belong to the owner of the land, according to article 552 of the civil code.

The mining code defines mine materials whose public usefulness justifies the possibility of access to the land resource required for extraction. The notion of mine is based on the nature of the materials, whether extraction is opencast or underground. The following are concerned: fuels (coal, oil, and gas), certain metals (nickel, gold, iron, copper, etc.) and other materials which may have industrial applications (uranium, carbon dioxide, salt, sulphur, etc.). Substances not mentioned here are considered by default as quarry substances.

Mining law No. 98-297 of April 21st 1998 also takes the specificity of mines in French overseas territories into consideration. Thus, for almost ten years now, gold mines in Guyana have benefited from a specific authorisation regime allowing rapid processing of authorisation requests.

Further, Law No. 2009-594 of May 27th 2009 on the economic development of overseas territories includes the development of a county-level mining plan. This plan defines the constraints that apply to mining operations right through to a ban on operation in the most environmentally sensitive zones, such as at the heart of Guyana’s Amazonian park.

Finally, Law No. 2009-526 of May 12th 2009 simplifying and clarifying the law and lightening procedures authorised the government to reform the mining code to bring it into line with current legal standards, grouping together legislative and regulatory provisions which apply to mining activities. Previous texts are expressly abrogated, but their content is re-used so that the positive law aspect remains.

Fiscal policy and regulations

Fiscal policy covering extraction industries is linked to the creation of county-level and commune-level duties as well as a tax on polluting activities (TGAP). These amounts were increased from 10 centimes per ton in 2008 to 20 centimes per ton in 2009, for a total tax base which is stable at around 400Mt of materials produced per year.

Applicable rules, provisions and controls

Research and prospection activities, as well as the operation and restoration of mines are covered by a specific technical policy derived from the Mining and Environment Codes for classified installations as protective of the environment. To these provisions we should add the Employment Code which is supplemented or adapted by the general Regulation of extraction industries, including provisions in respect of the health and safety of workers which are specific to the mine and quarry businesses (limiting exposure to dust, rules relating to the creation and maintenance of tracks and traffic rules, etc.).

Directives on artisanal mining concerns and small and medium sized mining companies

Systems of aid to industry are included in the general plan with aid for development or technological innovation projects in the form of a reimbursable advance or grant in certain cases accessible to SMEs from the sector. At regional level, sectoral support is available, depending on the issues at hand and difficulties encountered. For the period 2010-2011 in Guyana, an accompaniment to the gold mining industry is planned (improvement of specific processes, training, normalisation) targeting small and medium sized companies.

Public and stakeholder consultation

As a complement to articles 43 and 45 of the Grenelle 1 Law on consultation and access to environmental information for the general public, public consultation is included in the different stages of mine operation authorisation procedures (public enquiry, consultation of municipalities and the State services concerned: environment, economy, agriculture, archaeology, heritage protection, etc.) It should be noted that quarries plan includes all sustainable development restrictions. It is subject to an environmental assessment made by the prefect of the region and allows balanced management of the resource which is compatible with the different natural environments concerned. The quarries plan will, where applicable, also include the exploitation of marine resources.

In the case of mining extraction overseas, article 49 of the Grenelle 1 Law sets up specific provisions which seek in particular to “develop and adopt, as of 2009, in Guyana, in consultation with the local authorities, a mining plan which guarantees a sustainable development of extraction industries, respects the environment and is economically structuring; developing and adopting subsequently a marine mining plan for Guyana”.

Cooperation policy

Given the geographical diversity of supply sources, the market for metal mineral raw materials is, by definition, a global market. Thus, the development of cooperation actions is crucial to ensuring better availability of global resources. And this is even more important since France has no storage mechanisms at its disposal.

The existence and development of privileged links with producing States in the area of raw materials can have several beneficial consequences: ensuring sufficient and regular production, making supply to French industry more secure, stabilising markets and contributing sustainably to the development of producing countries.

Bilateral international cooperation includes both technical assistance (knowledge of the resource, institutional aid) and vocational training actions for mining managers in companies and administrations of producing countries. This vocational training is provided by the Écoles des Mines and the École de Géologie de Nancy as part of a common body called the Centre d'Études Supérieures des Matières Premières (CESMAT). The CESMAT is at the head of a network of over 2,000 former trainees from around thirty countries.

Reference practices in the extraction industries

- Environmental Impact Studies and controls at all stages of mining operations: see article 49 of the Grenelle 1 Law referred to previously.
- Study of dangers including a risk assessment which outlines mines and extraction activities: For categories justifying it (underground storage of inflammable gas in particular), the production of evidence-based danger studies is required with applications for opening up mining works.
- Aid to populations affected and renovation of ecosystems crucial to life, in particular by decommissioning of mining sites. This is linked to conditions of securing and rehabilitating them at the end of operations to make the finished site compatible with its future use.

Technological, institutional and social initiatives aimed at protecting miners' health: provisions of the Employment Code supplemented by RGIE (general rules for extraction industries) in addition to those of the Employment Code. A ban on the use of mercury in Guyana, as of January 1st 2006, in all processes.

General conclusion

With the Environment Grenelle, the French State has engaged with all actors to develop and integrate its sustainable development policy.

After the progressive closure of metropolitan mines through the twentieth century, French overseas territories are the focal point for mining extraction: nickel in New Caledonia, gold in Guyana. The specificities of these territories and the environmental challenges they face have been taken into account, particularly in the Grenelle 1 Law, in regulations which are adapted to the new challenges of sustainable development and offer accompaniment structures.