

FINAL REPORT

**GOVERNANCE PARTNERSHIP FACILITY –
FUNDED STUDY ON SMALL SCALE
MINING-SSM- IN ALBANIA:**

**IMPROVING TRANSPARENCY,
ACCOUNTABILITY AND DEVELOPMENT
IMPACTS**

**CHROMITE ORES MINING IN THE ZONE
BATRA-BULQIZA**

Tirana, October 2009

CONTENTS

1. FOREWORD
2. CHROMITE ORE DEPOSITS IN THE BATRA-BULQIZA ZONE
3. NUMBER AND SIZE OF EACH AND EVERY SMALL-SCALE MINING OPERATION ACTIVE IN CHROMITE ORE EXTRACTION, PROCESSING AND TRADING, AND THEIR PRODUCTION
 - 3.1. Chromite ore production and processing between 2001 and 2009
 - 3.2. Investment in the chromium extraction and processing industry
 - 3.3. Export and revenues from chromite ore extraction and processed products in Albania (chiefly in the Batra-Bulqiza zone)
 - 3.4. Government's effective control of production-processing workings, and selling and reporting activities, as well as revenue collection.
 - 3.5. Albanian Mining Industry Strategy and Legislation
4. ENVIRONMENTAL IMPACT OF CHROMITE ORE EXPLOITATION AND PROCESSING ON THE BATRA-BULQIZA ZONE, AND SAFETY ASPECTS SURROUNDING MINING WORKINGS, WORKPLACE CONDITIONS AND HEALTH
 - 4.1. Environmental Protection in the Mining Industry
 - 4.2. Designing and implementing projects
 - 4.3. Technical safety and training for health, safety and mining techniques
 - First meeting on 22-25 July 2009
 - Second meeting on 26-29 August 2009
 - Third meeting on 24-25 September 2009
 - Meeting with METE authorities – 12 October 2009
 - Meeting with *Empire* Mining Company – 14 October 2009
5. CONCLUSIONS AND RECOMMENDATIONS

FOREWORD

Albania is rich in basic metals, including chromium, copper, nickel and zinc, and industrial minerals, including sand, gravel, limestone, gypsum, kaolin and quartz.

However, both the metallic mineral sector and the industrial mineral sector include a considerable number of small-scale mining operations and mining operations run by small groups of private entrepreneurs.

It is estimated that the number of small-scale mining operations in the metallic mineral sector alone ranges between 150 and 250¹, with the number of mining workings for industrial minerals exceeding 450.

In such workings, elementary ore extraction and processing methods are employed, and, more often than not, miners work under difficult and highly hazardous conditions. In addition, such workings are not environmentally friendly.

1. CHROMITE ORE DEPOSITS IN THE BATRA-BULQIZA ZONE

The chromite ore geologic reserves within the Bulqiza Ultrabasic Massif are estimated at 18.29 million tons, or less than half the total quantity across the country.

Of which:

- Containing over 42% Cr₂O₃ – 5.24 million tons, or 87% of country's reserves of same quality.
- Containing 38-42% Cr₂O₃ – 2.36 million tons, or 75% of country's reserves of same quality.
- Containing 30-38% Cr₂O₃ – 2.90 million tons, or 75% of country's reserves of same quality.

Total of chromite ores containing over 30% Cr₂O₃ - 10.514 million tons –
and containing 18-30% - 7.77 million tons

By (main) deposits at the Bulqiza Ultrabasic Massif:

Deposit Bulqiza – 6.75 million tons

Deposit Batra – 3.73 million tons

Deposit Qafë Buell (16 October) – 1.11 million tons

Deposit Thekën – 0.525 million tons

Deposit Tërnova – 0.441 million tons

Deposit Krasta – 2.82 million tons containing 18-30% Cr₂O₃.

The extractable or mineable chromite ore reserves account roughly for 0.56 of geologic reserves. This is the outcome of long years of experience (around 60 years – between 1948 and 2008) with the exploitation of the chromite ore, particularly, in the biggest mine at Bulqiza, which has been and is the richest ore.

2. NUMBER AND SIZE OF EACH AND EVERY SMALL-SCALE MINING OPERATION ACTIVE IN CHROMITE ORE EXTRACTION, PROCESSING AND TRADING, AND THEIR PRODUCTION

As pointed out in the Terms of Reference that, despite difficulties for the Government to control the mining sector, exploitation by small-scale mining operations, active in the chromium sector, is taking place and is being administered relatively well. In the Batra-Bulqiza zone, under consideration in this study, 56 private subjects (companies), out of 97 subjects (companies), holders of prospecting, discovery and exploitation permits, are involved in underground mining. These companies altogether register around 1,300 employees (workers, technicians, engineers, administrators and owners), of which 600 are employed with the ACR at the Bulqiza Mine, and around 700 others with the private small-scale operations.

2.1. Chromite ore production and processing between 2001 and 2009

| No. | Header | | PRODUCTION, thousand tons | | | | | | | | | | |
|-----|--------------------------|-------------------|---------------------------|-------|-------|-------|-------|-------|--------|--------|-------------------|--------|-----|
| | | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 (Aug. 09) | | |
| 1. | Chromite ore extraction | Bulqiza Mine-ACR | 17.88 | 43.91 | 70.96 | 76.54 | 73.96 | 83.66 | 51.19 | 74.68 | 54.0 | | |
| | | Private companies | 19.46 | 29.53 | 47.55 | 64.10 | 83.67 | 96.80 | 136.31 | 149.32 | | | |
| 2. | Chromite ore enrichment | Bulq | Feed | 26 | 72 | 58 | 144 | 162 | 150 | 178 | 230 | 240.00 | |
| | | | Prod | 2.65 | 7.24 | 5.82 | 14.43 | 16.27 | 14.97 | 17.78 | 23.00 | 25.00 | |
| | | Bat | Feed | - | - | - | - | - | - | - | - | - | 2.0 |
| | | | Prod | - | - | - | - | - | - | - | - | - | 0.5 |
| 3. | Carbonic FeCr production | Burrel | - | - | 7.80 | 10.70 | 3.98 | - | - | 4.27 | | | |
| | | Elbasan | 19.80 | 24.51 | 26.20 | 37.00 | 31.80 | 13.23 | 0.92 | 12.05 | | | |

The products of the chromite ore industry: chromite ore rich in 38-42 % Cr₂O₃, chromite concentrate containing 44-50% Cr₂O₃, and carbonic ferrochrome, have

been traded by 14 exporting companies, mainly acting on behalf of the private small-scale mining operations. What they sell is fully identifiable by the Albanian Customs at the Albanian main sea-port at Durrës.

2.2. Investment in the chromium extraction and processing industry

Table 2

| No. | Header | | Investment, million USD | | | | | | | | | |
|-----|----------------------|-------------------------|-------------------------|------|------|------|------|------|------|------|-------|------|
| | | | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| 1 | FeCr Plant - Elbasan | | 1.0 | 4.0 | 2.4 | 0.7 | 2.7 | 0.56 | - | 40.0 | 65.9 | |
| 2 | Conc. Bulqiza | Bulqiza Mine | - | - | 0.1 | 0.22 | 1.33 | 0.01 | - | - | - | |
| | | Enrich. Plant Bulqiza | - | 0.06 | 0.10 | 0.22 | 0.26 | 0.27 | 51.6 | 10.4 | 85.3 | |
| | | FeCr Plant - Burrel | - | - | - | 0.11 | 0.95 | - | - | - | 8.52 | |
| 3 | Private subjects | | - | - | - | - | - | - | 1.94 | 5.39 | 10.61 | |
| 4 | Invest. Budget | Support for mines | 2.07 | 2.72 | 1.71 | 0.99 | 2.05 | 1.21 | 0.86 | 1.13 | 1.25 | |
| | | Support for geosciences | 2.39 | 2.06 | 2.21 | 3.23 | 2.54 | 3.38 | 2.26 | 2.62 | 2.35 | |

2.3. Export and revenues from chromite ore extraction and processed products in Albania (chiefly in the Batra-Bulqiza zone)

Table 3

| No. | Header | Items by years | | | | | | | | | | | |
|-----|------------------------------|---------------------------|------------|---------------------|---------------------------|------------|---------------------|---------------------------|------------|---------------------|---------------------------|------------|---------------------|
| | | 2005 | | | 2006 | | | 2007 | | | 2008 | | |
| | | Quantity in thousand tons | Price in □ | Value in thousand □ | Quantity in thousand tons | Price in □ | Value in thousand □ | Quantity in thousand tons | Price in □ | Value in thousand □ | Quantity in thousand tons | Price in □ | Value in thousand □ |
| 1. | Chromite ore and concentrate | 92.8 | 57.9 | 5 374 | 205 | 65.8 | 13 513 | 366.4 | 99 | 36 304 | 205.9 | 218 | 45 066 |
| 2. | Ferrochrome | 33.04 | 726.9 | 24 022 | 16.2 | 521 | 8 467 | 1.396 | 691 | 965 | 13.49 | 1 580 | 21 337 |
| | Total | 125.8 | | 29 396 | 221.2 | | 21 980 | 367.79 | | 37 269 | 219.4 | | 66 403 |

* Data in Tables 1, 2 and 3 have been provided by the Ministry of Economy, Trade and Energy – METE

Besides meeting the country's needs for chromite ore, the mining industry has largely helped to bring in revenues from exporting mineral ores, including chromium, bauxites, and iron-nickel, processed products, including blister copper and copper wires and cables, and carbon ferrochrome. Over the recent years, prolonged low market prices for metals, including chromium, nickel, and copper, have caused the chromite ore and iron-nickel ore production to fall off, and between 2005 and 2008, the considerable increase in the prices led to a considerable increase in the production of these mineral ores in Albania.

The ever greater effectiveness of traditional ore extraction in Albania, enhancing capability of coping with the market competition, is directly related both to the production costs and the levels of mineral ore processing, to which both by the foreign investors (for copper and chromium) and the local investors (for chromium), are paying more attention. Local producers dealing with chromium and copper have also started to consider this.

Irrespective of the fact that, actually, the Albanian mineral ore products do not have a considerable weight in the foreign market, with their prices as minerals and metals being also determined by the market price levels, the accrued revenues have proved considerable to the local communities around these mining areas, thus allowing greater employment opportunities for the inhabitants and relative increase of their standard of living.

2.4. Government's effective control of production-processing workings, and selling and reporting activities, as well as revenue collection

Despite improvement in the performance of concessionary companies, OSHA, the authorised state-run body, has had trouble monitoring the Concessionary Agreement, and basically, with regard to the following:

- Periodically collecting data on the realisation of investment, production, number of employees, average salary, standards of use, and sales of products.

- Checking realisation of investment in chromite concessions, given that the investment programme submitted by the concessionaire falls short of comprehensively specifying, in terms of nature, value and time-limits, the core mining workings, machinery and equipment.
- Guesstimating and settling of penalties through failure to realise planned investment.
- Administering the facilities left over by concessionaire, or through termination of concession.
- Ensuring the concession facilities.
- Turning over (restitution) a number of facilities not made active by the concessionaire.
- Paying off local government taxes.

2.5. Albanian Mining Industry Strategy and Legislation

Strategy

A meeting with Mr. Zef LLESHI, Eng., expert in the Ministry of Economy, Trade and Energy, and in charge of the mineral extraction and processing sector (geology, mining, beneficiation and metallurgy), the Department of Industrial Policies, under the Directorate General for Policies, was held with a view to addressing the issues surrounding small-scale chrome mining.

He focussed in detail on the Albanian Mining Industry Strategy that is presented in the frame of the Strategy of Business and Investment Development for 2007-2013, compiled by the Ministry of Economy, Trade and Energy.

The strategy is designed to ensure building a sustainable State-business partnership, and creating an encouraging environment for pursuing investment and export policies through industrialisation and channelling of investment towards high technology-based sectors.

The said Strategy is intended to ensure a sustainable economic growth, and higher productivity and competitiveness, through the energetic development of entrepreneurship, promotion of investment, and better utilization of the natural, human and financial resources.

The Albanian economy is considered to be entirely open. Trade is entirely liberalised; there is a moderate customs tariffs, an easy licensing system, and nearly total lack of non-tariff barriers.

The directions on which to focus include the following:

- *Economic integration of the country* – Through further liberalisation of trade, monitoring and inter-institutional coordination so as to ensure compliance of the economic and commercial legislation with the WTO and EU standards, the implementation of CEFTA and the Interim Agreement with the EU.
- *Correct implementation* of the policies for regulating the free movement of goods, and in full compliance with the European Union standards, allowing the Albanian exporters' maximum access to the markets across the region and Europe.
- *The privatisation* of the strategic sectors is the most important stage in the privatisation process, which ensures the consolidation of the new market of capitals, and creates conditions for promoting foreign investment in the important sectors of the domestic economy.
- *Guaranteeing and strengthening effective Government-business.*

A number of identified elements, outlined in the following, have given rise to the current need for reforming mining industry further on:

- ⌚ **Bringing the Albanian mining legal framework into line with the EU directives and standards.** In view of the major priorities for the Albanian economy and the Government's programme also in the framework of the European integration processes, the development of the mining industry in Albania and the development of tourism should be placed on solid ground through measures to be taken for the environmental rehabilitation following mining exploitation. Facilitating the current fiscal package would be the only one way to promote investment. This principle is one of the main EU standards. "Strong rules for the environmental protection and rehabilitation (and in compensation for that), and facilitating the fiscal package (obligations towards the State) for the administrators of mining assets. This becomes even more necessary given that the mining industry administrators should see to it that manpower is trained in accordance with the EU standards, including safety at work, social assistance, and pensions. In short, spurring development of the mining industry at home, while focussing on the maximum environmental conservation and rehabilitation and the protection of the community working in the neighbourhood, would mean facilitating of the obligations towards the State, however, with an attractive profit for the administrators and an acceptable profit for the State.
- ⌚ **The ever increasing demand for mining raw materials.** In Albania, they have started to cope with demands of the internal market, and chiefly, of the foreign market, and they should continue to do so, while exploring the most effective potential of our mineral ores, the possibility of opening to the regional market, and in particular, the European market. These initiatives

should be preceded by mid- and long-term programming instrumental in developing geological prospecting activities for the Albanian traditional mineral ores, and discovery workings at known deposits, currently being exploited, thus giving rise to the **mining area map**.

- ⌚ **The study of the domestic market demand**, particularly for the construction materials (bricks, roof tiles, cement, and lime), with their comparison to the local potentials remaining an important issue for the development of mines.
- ⌚ **Unstable and often unfavourable passing circumstances for prices.** Enhancing the level of mineral dressing at a national level and in cooperation with the region, is viewed as one the important tools for coping with the periodic price fluctuations on the international market.
- ⌚ **Increased production cost** should be coped with through enhanced production and processing capabilities, the application of advanced technologies (mechanisation, automation, remote controlling, and introduction of rubber-wheeled vehicles) on account of the low production and processing capability.
- ⌚ **Greater competition.** Free market for the mining industry products, with players including international competitors; monopoly tendencies in this areas should be fought. The tendency for blocking the useful mineral ore deposits beyond the time provided for under the Mining Law, with no prospecting-discovery and/or exploitation workings going on, should be avoided right away.
- ⌚ **Land ownership conflicts.** Efforts for obtaining prospecting permits, and particularly, mining exploitation, have early on come across conflicts among

the stakeholders, including the land owners, the local community, and advocate groups for the conservation of the natural heritage (environment).

- ⌚ **Constantly improving the legal and fiscal landscape**, considering it as a dynamic European integration process, allowing meeting the current needs and the specific mid- and long-term objectives for the development of the mining industry and of the country.
- ⌚ **Ensuring normal parameters under the Law “On environmental conservation and rehabilitation.”** Designing and adopting the relevant subordinate acts, perhaps specific for the mining industry, will help meet this challenge. By supervising and monitoring mining activities.
- ⌚ **Improving the research, assessment, designing, monitoring and consultation work, as well as the professional technical management and supervision of the mining activities.**
- ⌚ **Avoiding mining hazards and safe land use.** Adopting the legislation package regulating monitoring of the shut-down mines and the active ones, of which rehabilitation ensures avoiding the mining hazards, and the availability of industrial areas for constructions of higher economic effectiveness.
- ⌚ **Training human resources** capable of managing the mining industry. Attention should be paid to the training of the future expert, be it an engineer, an economist and a manager, who is able to undertake technical and economic analyses and assess the environmental impact.
- ⌚ **Environmental conservation, protection and rehabilitation.** Legislation, regulations, overseeing, monitoring of the mining permits, and complying

with the concessionary contracts – in the future, all of them should become the dominant terms in the mining activity-tourism binomial.

- ⌚ **Technical safety and workers' training.** In the course of work, the human factor, as the most important aspect of the mining activities, should receive protection and treatment in line with the contemporary standards, including prevention of accidents, training for safety at the workplace, and the living and working conditions. And this factor's economic level will definitely be important to the success of the mining activity.

Legislation

Issuance of permits for the mining facilities and exploitation (ore extraction, enrichment and smelting) is regulated by the following legal documents:

- Law no. 7796, dated 17 February 1994, “Mining Law of Albania,” and its relevant amendments. The new “Mining Law of Albania” (as amended) was taken up for discussion and was endorsed by Council of Ministers, and is expected to go through the Parliament of Albania.
- Law no. 9663, dated 18 December 2006, “On concessions.”
- Decision by the Council of Ministers no. 27, dated 19 January 2007, “On approving the concession assessment and granting rules.”
- Law no. 7664, dated 23 January 1993, “On environmental protection.”
- Law no. 7623, dated 13 October 1992, “On forests and forest service police.”
- Decision by the Council of Ministers no. 1109, dated 30 July 2008, “On life insurance Law.”
- Other subordinate legislation acts.

Early 2009, the active mining permits totalled 802, of which:

- 409 exploitation permits for limestone
- 262 exploitation permits for chromite ore
- 38 exploitation permits for clays
- 25 exploitation permits for iron-nickel and nickel-silicate ore.

In an effort to amend the relevant legislation designed to improve and facilitate work for the private subjects operating mining facilities, and ensure that they have access to licensed technical management, the following have been drafted:

- Subordinate legislation acts pursuant to Law no. 9261, dated 22 July 2004, “*On several additions and amendments to Law no. 7796, dated 17 February 1994*”.
- Decision by the Council of Ministers no. 54, dated 28 January 2005, “*On establishing the criteria for issuing professional issues to experts involved in*

designing, estimation, consultation, monitoring and technical management of mining workings,” and,

- Regulation endorsed by Minister, *“On the special committee handling professional licenses.”*

With the aim of improving licensing overall, including licensing in the mining area:

- The National Licensing Centre is established.
- The Law “On the National Licensing Centre” has been adopted; and,
- The mining licensing acts and regulations have been drafted. The National Licensing Centre has not yet started to issue mining licenses.

3. ENVIRONMENTAL IMPACT OF CHROMITE ORE EXPLOITATION AND PROCESSING ON THE BATRA-BULQIZA ZONE, AND SAFETY ASPECTS SURROUNDING MINING WORKINGS, WORKPLACE CONDITIONS AND HEALTH

3.1. Environmental protection in the mineral mining and processing industry

Being a relatively important producer of mineral ores, which are further processed through enrichment, metallurgy and refining, in terms of the production of metals the Balkan region contributes to increasing the risk of environmental pollution in a number of ways. Relying on a centralised the economy, the Balkan countries used to have low expectations regarding environmental protection.

In the early nineties, as a result of use of poor coals for generating electricity, considerable emissions of SO₂ and NO_x are twice as much as expected under the EU standards. Likewise, the prolonged regional conflict in former Yugoslavia during the nineties killed the interest in protecting the environment from pollution.

Actually, Albania is facing important issues relating to environment, erosion, illegal cutting and extinction of forests and vegetation resources, urban waste, industrial pollution and fast population growth, which have led to environmental degradation. The latter is especially evident in coastal areas. Population shifting has exerted strong pressure on environment. Coastal vegetation is being replaced by inappropriate farming

practices for maintaining the population, thus contributing considerably to corrosion and environmental degradation.

Between 1945 and 1991, Albanian industry, a formerly centralised economy, relied on the extraction and enrichment of the chromite ore, copper, iron-nickel and steel.

An inefficient industry, the Albanian industry (mines, smelting, refining, metallurgical plant at Elbasan, refineries, thermal-power plants and chemical industry) has contributed significantly to the environmental pollution.

Building on the extraction and enrichment of the copper and chromite ore, the extraction of coals, the extraction and processing of oil and gas, and the production of construction materials, the mineral ore extraction and processing activity contributes to turning out the largest amount of industrial waste, next to the daily waste by urban centres.

In terms of the environment, the closed-down undertakings are largely tackling with the problems caused by the waste accumulated in them over the years, as, for instance, in the chromium (and copper) industry.

The chromite ore industry waste:

Table 9

| No. | Header | Quantity | Notes |
|-----|--|-------------------------------------|-------|
| I | <i>Mine</i> | | |
| | Tailings and chromite ore waste Bulqiza-Batra-Thekën-Krasta- Kalimash, Tropoja, etc. | 18.8*10 ⁶ m ³ | |
| II | <i>Enrichment</i> | | |
| | Tailings on dams in the chrome ore enrichment plants Bulqiza, Batra, Kalimash | 2.5*10 ⁶ m ³ | |
| III | <i>Metallurgy</i> | | |
| | Tailings and scoria from the ferro- chrome production plants Burrel-Elbasan | | |

Mining industry facilities, which are the greatest contributors to environmental pollution, both in Albania and in the other countries across the region, include chiefly the copper industry (mining, enrichment and metallurgy), the steel industry, Elbasan, and less so, the chrome ore industry (mining, enrichment and smelting).

The greatest care should be taken to ensure that these facilities reduce their waste.

In 2008 and 2009, a considerable effort is being made to ensure protection of environment in the mining industry and the clearing of waste, with this effort being funded and supported by international bodies. Care is also being taken to reduce to the minimum the emission of hazardous substances into the air, as is the case with the steel industry, the copper production (concentrates from the enrichment plants), and ferrochrome smelting at Elbasan and Burrel.

In the meantime, efforts have been made to identify hotspots and their clearing of waste.

Monitoring the closed-down mining facilities

Given that, with the closing down of the state-owned mining companies and undertakings (when no administrative structure is in place to control and monitor this process in the mining areas), the surrounding environment and the local inhabitants will be exposed to hazards arising from former mines, there is need for monitoring the former mining areas, which used be exploited and are now shut-down. To that end, a monitoring structure has been established with the Albanian National Agency of Natural Resources.

This is considered another leap forward towards bringing the domestic mining legislation into line with the EU legislation.

3.2. Designing and implementing projects

Addressing workplace safety issues is high on the agenda of the private companies. This is the responsibility of the technical supervisor(s), including the mining engineer, and the respective mining technicians, geologists, and surveyors. While following the project for the opening and exploitation of a mine, they handle the implementation of the project and its adjustment to the concrete conditions. This is preliminarily reflected in the business orders and the respective instructions issued by a company's technical supervisors (of the mine) under their responsibility.

In this framework, for all the sectors foreseen to be involved in new facilities where no exploitation has been registered in the past, technical passports for the exploitation of the chromite ore bodies are drafted.

Technical passports for the exploitation of chromite ore bodies are more important especially for facilities exploiting chromite ore residues found in the mines opened a long time ago, including Batra, Bulqiza, Thekën, and Tërnova.

Effective schedule of exploitation and coordination of work among subjects, so as to avoid potential risks for them to affect one another, poses a problem here, as, in certain cases (like in Batra and Bulqiza) they work at levels overlying one another.

Regarding the above, what is required is not merely good understanding and cooperation among the private operating companies, but also legal responsibility, materialised through verification work by the state bodies, and in this case, by the Albanian National Agency of Natural Resources (AKBN), the Mining Department, the Mining Inspection and Rescue Department (RISHM), so as to technically and responsibly administer these companies – around 90 – in the Batra-Bulqiza zone alone, with both an actual considerable potential of chromite ores (see the deposits shown above), and an open perspective to go wider and deeper in these deposits.

Likewise, the chromite ore exploitation companies, of high or poor performance, should be required to show preliminary relative accuracy (truthfulness) in producing the technical passports for the sectors with chromite ore deposits to be exploited. This would call for close technical and economic-financial cooperation among state bodies, the Albanian National Agency of Natural Resource(deposit)s – Mining Department, and the supervision of these passports in the course of their designing and their application by the afore-mentioned mining authorities

(the Albanian National Agency of Natural Resources – the Mining Inspection and Rescue Department).

3.3. Technical safety and training for health, safety and mining techniques

During on-site meetings with the administrators and technical supervisors of the companies involved in mining exploitation, debates were focussed on issues, including health and safety at workplace, the working conditions, equipment, outfits, food treatment, life insurance, guarding of mining sites, pensions, suggestions for retirement age, workplace environment, environment-friendly mining sites, fiscal issues, loaning, mining royalty rate, local and central government taxes, grounding of the mining expert workers, and training of technical-engineering staff.

First meeting on 22-25 July 2009

Meetings were initially held with small-scale mining operations active in the Batra-Bulqiza area. Members of the study group attending the meeting included Eng. Martin Cukalla, Eng. Nikolla Seferaj and Eng. Jani Bakallbashi, as well as Eng. Ismail Mema, the study group contact person at the Mining Department, the Albanian National Agency of Natural Resources.

In the meeting, the study group submitted the platform of study conducted by the World Bank. It helped put the participants in the picture regarding the main issues facing small-scale mines in Albania. These issues basically concern increased transparency, reporting and selling of products, health, normal working and safety conditions, and maximum plausible prevention of hazards and accidents of any type.

Special focus was put on the above issues given that the majority of the companies involved in the chromium extraction feature underground mine

workings, and small-scale mining sectors only exploit and extract chromite ore in open-pit mines and quarries, chiefly at the limited surface outcrops of chromite bodies.

The following is a report on the activities of a number of small-scale mining operations involved in underground workings, and mainly, in the chromite ore exploitation in the Batra-Bulqiza area.

Here is an account of their specific problems and concerns in two aspects:

- Obligations to be met by private companies so as to ensure smooth running of things;
- Obligations to be met by the Albanian Government through its administrative, tax and supervisory-technical bodies.

BULQIZA

Company *Klevi Brisk sh.p.k.* Mining technician Ardian Hida is technical supervisor at underground facility, Gallery 65 Bulqiza, with exploitation permit no. 1163.

Based on a discovery project, this Company has invested and carried out underground discovery by making use of a drilling rig so as to ensure further perspective for the exploitation of chromite ore bodies (especially, containing 38-42 % Cr₂O₃) eastwards of the Almarina-Bulqiza sector.

It registers 10 staff, of which 7 miners and 3 wagoners and blast men.

All workers have health and social insurance coverage.

Minimum salary ranges between 30,000 lekë and 60,000 lekë a month.

Workers are offered working outfits, transportation (by two vehicles) from home to their workplace, at the mine. For 2009, the Company has produced nearly 600 tons of chromite ores, containing around 42% Cr₂O₃.

The costs for the extraction of 1 ton of chromite ores are estimated at around 6,000 lekë/ton (or around 60 USD/ton), and the transportation costs plus port expenditure at the Durrës Sea-port at around 30 USD/ton.

Currently (2009), the export price of chromite ore is 125 USD/ton (including also expenditure incurred by companies involved in contracting the export of chromite ores).

Under a simple but important project designed for the management of the surface environment of the facility, tailings and other necessary stuff for the mine are properly arranged.

The principal mine horizon, Gallery 65, is located at absolute quote +1208 m above sea-level –a.s.l.

The following problems were identified in the course of the meeting, and were brought forward by the Company's technical supervisor:

- The Government should endorse and check observation of the schedule of exploitation. The reason behind this concerns overlapping across licensed surface areas. In this case, the respective state bodies, including the Ministry, the Albanian National Agency of Natural Resources and the Mining Inspection and Rescue Department, should step in and exercise continuous checks so as to establish a schedule of exploitation, horizontally and vertically, and ensure that this schedule is observed.
- The borders of mining areas intended for exploitation should be subject to a mandatory agreement to be concluded among adjacent companies, for

the purpose of preventing plausible future hazards and calamities. This agreement should be endorsed by the relevant afore-mentioned institutions, which should check its implementation on a constant basis.

- Upon issuing exploitation permits either for facilities registering underground mining or those registering open-pit mining, the Government and its relevant institutions should require technical disciplining of mining workings. This should start as early as the preliminary stage of the drafting of the documentation required when applying for an exploitation permit, and particularly, during the drafting of the yearly draft programs for the carrying out of mining workings and exploitation of chromite bodies.

Company in Gallery 48, Zone D-Bulqiza, Eng. Agim Myrtellari. The Company pointed out that they had not worked during 2008. During 2009, they opened around 800 m of new roads, with expenditure amounting to around 55,000 €. Now, they are focussed on picking up the basic mining workings.

Hence, they are not producing, and consequently, not selling.

Chromite ore deposits, containing 42% Cr₂O₃, are estimated at around 7,000 tons.

Their staff is skilled in chromite ore washing and hand-picking.

As far as the other companies are concerned, we will dwell on details related to the main problems they have been dealing with, and those put forward by these companies:

Company Egi-K sh.p.k., administrator Eng. Eduart Keta and technical supervisor Eng. Sulejman Meta; Gallery 2053, Zone D - Bulqiza; exploitation permit no. 1088; and Gallery A1 in Central Zone; permit no. 1155.

Containing 40-41% Cr₂O₃, products from both facilities have been estimated at 6,500 tons.

Extraction cost – 80 USD/ton. Transportation cost – 30 USD/ton, including port expenditure.

Selling price – 330 USD/ton (2007).

The Company has covered expenses for employees' five-day stay at the beach.

Problems:

- Upon issuing an exploitation permit containing coordinates x, y, z, arrangements should be made to check whether companies are sticking rigorously to the approved borders.
- Exploitation companies fail to observe the schedule of exploitation in the areas.
- Through its relevant institutions, the Government should intervene with the aim of both checking and settling technical issues for the preparation and exploitation of mining facilities.

Company Isaku sh.p.k, administrator Edmond Isaku and technical supervisor Ilmi Shehu; Galleries 11 and 12; Southern Zone; above Gallery 65, Zone D.

The Company has restored a new Gallery, Gallery 12, 150 ml long, with its cost being estimated at 200 USD/ml, and a total investment at around 30,000 USD. The Company produced 1,000 tons of chromium (November–December 2008), and has registered no selling. Cost of production – 120 USD/ton. Average salary – 50,000-60,000 lekë/month. Manpower – 12 persons.

Problems:

- A mining permit outlines the licensed surface, without specifying coordinate Z.
- Dangerous area on account of plausible shifting of the surface area in Zone D and its surroundings, and settlement of conflict with the Russian-Austrian Company *ACR* so as to move from first zone towards Zone D.
- Workings, without an exploitation permit, on all old stocks of tailings.
- Unauthorised destruction of galleries in order to grab some more tons of chromium is also noticed.
- Unauthorised, uncontrollable and undocumented exploitation of chromite ores in underground mining workings by the companies.

Subject *Runja sh.p.k.*, exploitation permit no. 1082; administrator and technical supervisor Eng. Remzi Pupli; area of Gallery 104, 52 (levels); pit no. 1, Bulqiza.

The Subject offers health and social insurance coverage to its 15 workers. They have their own individual working equipment, and have access to transportation to their workplace.

In 2008, they produced 1,000 tons of chromite ores, containing 40% Cr₂O₃. No selling was registered.

During the first half of 2009, they produced 700 tons of chromite ores, containing over 40% Cr₂O₃.

Cost of ore extraction – 60 USD/ton. Cost of transportation on the route Bulqiza-Durrës – 15 USD/ton. Port expenditure at Durrës – 15 USD/ton. Its manpower includes mining experts, blast men, reinforcement supporters and their assistants, as well as motocompressor operators.

Average salary – 60,000 lekë/month; for minors – 80,000 lekë/month.

Problems:

- In the case of similar companies with the above, the old documentation (existing technical-geological documentation) is not made available.
- There is no description of how employees, workers and technicians are trained.

TËRNOVA

Company Tërnova 2000, administrator Lahim Gjika and technical supervisor Eng. Remzi Pupli; exploitation permit no. 579 for Galleries 1, 2, 3 and Dishëndëria.

In 2008, the Company turned out 2,000 tons of chromite ores, containing over 38% Cr₂O₃. In 2008, it sold around 4,000 tons, containing over 38% Cr₂O₃, at 340 USD/ton. Cost of production – 80 USD/ton. Transportation and port expenditure – 30 USD/ton.

The Company offers insurance, meals, accommodation and transportation to its 18 workers. Average salary is 45,000 lekë/month, and maximum salary 80,000 lekë/month.

The Company reports no problems in supporting the workings. The formations are solid, with wood piling. During winter, workings are interrupted for a period of four months. Accurate technical documentation is available.

Problems:

- Workers' training according to specialties, technicians' training.
- Problems with the local government regarding taxes, amounting to around 150,000 lekë/year (aside from central government taxes).

BATRA

Company 11 Heronjtë Batra, administrator Eng. Agim Çevani and technical supervisor Eng. Dhurim Kurti; exploitation permit no. 755, dated 16 March 2004. The facility includes Galleries 6/1 and 6/2, former galleries of the Batra Mine. At present, they are seeking to get hold of the mine ex-pillars. They work one shift. The workers and technical staff, 38 all told, have social and health insurance coverage.

The Company offers meals, accommodation and transportation. The average salary is 30,000 lekë/month, and maximum salary 60,000 lekë/month. A business order and instructions are prepared for each mine development and mining sector.

In 2008, the Company manufactured 7,000 tons of chromite ores, containing 36-40% Cr₂O₃. They have opened 600 ml of cutting and prospecting workings. Transportation within the mine is ensured by electrolocomotives. Extraction cost for one ton of chromite ores is estimated at around 70 USD/ton. Cost of transportation and port expenditure at Durrës are estimated at 30 USD/ton. In 2008, 6,451 tons of chromite ores, of the above quality, were sold at 300 USD/ton.

For 2009 (July), 322 ml of mining workings have been opened, and 3,000 tons of chromite ores, containing 36-38% Cr₂O₃, have been produced. No selling has been registered.

Problems:

- No problems with the adjacent companies, regarding schedule of exploitation, were reported.

- No major environmental problems were identified, except for the need to clean the mine site and the enrichment plant, do some flattening out, and provide the territory with enclosure and decoration.
- Mastering of effective technology for the enrichment of poor chromite ores in the new chrome concentrator, built in the square in front of the Company's galleries.

Company Klosi sh.p.k., exploitation permit no. 488; administrator Nazif Klosi and technical supervisor Eng. Dhurim Kurti. The Company is working at horizon +1210 m. - m.n.d., New Zone Batra. The geological formations are not good, are instable, and have water running and powerful supporting. Here, they exploit the chromite bodies left over from previous intensive exploitation (protective pillars and poorer parts of the chromite ores).

They work one shift, with a total number of 28 workers, all of them covered by insurance. They apply a 5-day working-week. They pay salaries of 30,000 lekë/month, with the maximum salary being 60,000 lekë/month.

In 2008, the Company manufactured around 5,000 tons of chromite ores, containing 36 % Cr₂O₃, and extended mining workings for a length of 440 ml. They sold 4,800 tons at 250 USD/ton. Cost of ore extraction – 110 USD/ton (long gallery).

For 2009, they have extracted 2,200 tons of chromite ores, containing 36 % Cr₂O₃. So far, they have sold around 500 tons of chromite ores, at 120 USD/ton.

Transportation is ensured by electrolocomotives. Working norms are 60% lower than the previous ones (prior to 1990).

Company Neli sh.p.k., exploitation permit no. 893, dated 27 July 2005; administrator and technical supervisor Isuf Neli.

In 2008, the Company produced 6,000 tons of chromite ores, containing 38% Cr₂O₃, in open-pit mining – quarry.

Cost of ore extraction – around 60 USD/ton. They have hired 7 workers, all of them covered by insurance. Average salary – 30,000 lekë/month. They register a total number of 22 working days in a month. For 2009, they have turned out 400 tons, because the depth of chromite ore bodies is reduced to 1 m.

The Company offers meals, accommodation and transportation for workers. They work 5 days a week. No accidents have been registered.

Problems:

- Working safely at quarries is questionable because of the very steep escarpment of exploitation; there are no stairs; the relevant intermediate landing platforms are not in place.

THEKËN

Company Albanisa sh.p.k., administrators Flamur Krypi, Pëllumb Perkola and Gani Hoxha, and technical supervisor Shyqyri Peshku; exploitation permit no. 475.

This Company is working on the facility at the old Gallery 7 going as far as profile 5, Gallery 8 and Gallery 6 as high as quote + 1555 m. – m.n.d.

They work one shift, 6 days a week, registering a total of 10 workers, all of them with social and life insurance coverage. Salaries range between 50,000 and 70,000 lekë/month. They offer individual working equipment and transportation for workers.

In 2008, the Company turned out 6,000 tons of chromite ores, containing 36-38 % Cr₂O₃. Cost of chromite ore extraction is estimated at 80 USD/ton, and cost of

transportation together with the port expenditure at Durrës at 30 USD/ton. In 2008, they sold 4,000 tons of chromium at 200 USD/ton.

For 2009, the Company has manufactured (extracted) 1,300 tons of chromite ores, containing 36-38 % Cr₂O₃. No selling is reported.

Problems:

- Borders of exploitation areas (permits) with the adjacent companies.

Company Koka sh.p.k., exploitation permit no. 775, dated 21 July 2004; administrator Rakip Koka and technical supervisor Jakup Gura.

The Company is focussed on Gallery 12, with a panel of 42 m, which borders on Gallery 7. They have established a new working area of around 215 m.

They work one shift, 6 days a week. They provide insurance coverage to their 7 workers. They offer equipment and transportation. Salaries range between 50,000 and 70,000 lekë/month. Cost of chromite ore extraction is estimated at 80 USD/ton, and cost of transportation and port expenditure at Durrës at around 30 USD/ton.

In 2008, they turned out 1,200 tons of chromite ores, containing 42 % Cr₂O₃. No selling was reported.

For 2009, they have produced 600 tons of chromite ores, containing 42 % Cr₂O₃, which they keep as stock in the mine. Mining workings are basically without support. Support is provided at not very solid areas only.

Problems:

- Borders of exploitation areas (permits) with adjacent companies.

Company Koka sh.p.k., exploitation permit no. 1024, dated 13 June 2007; administrator Rakip Koka and technical supervisor Jakup Gura.

The Company's facility includes Gallery 16, with a panel of 32 m. They have restored mining workings, and constructed new mining workings for a length of 80 ml, mainly in poor formations.

The Company has hired 8 workers, who have health and social insurance coverage. They work 6 days a week. The Company offers individual equipment (outfits, boots, helmets, and lamps) and transportation for workers.

In 2008, they produced 800 tons of chromite ore, containing 44% Cr₂O₃. No selling was reported.

Fon 2009, the Company has turned out 400 tons of chromium, containing 44% Cr₂O₃. They have not yet started to sell. The mineral is stocked in the mine site.

No accidents and technical safety issues have been registered.

Problems:

- Dividing borders of the exploitation areas (permits) among adjacent companies.
- The situation of surface area in the mining facilities, especially where outcrops of ore bodies have been exploited through quarries, *remains a problem for all the companies*. The stairs are either not in place, or the existing ones are placed so high that there is a risk for large blocks of sterile rocks to fall over, creating dangerous conditions for people's lives.

Company Gjoni sh.p.k., exploitation permit no. 1326, dated 21 February 2009; administrator Jashar Gjoni and technical supervisor Jakup Gura.

The Company is working at Gallery 15, with a panel of 31 m. They have restored mining workings, and new mining workings are constructed for a length of 300 ml, mainly on solid formations, propped by a metallic and wood support piling.

The 12 workers are covered by health and social insurance. Their salaries vary between 50,000 and 70,000 and 90,000 lekë/month.

In 2008, the Company produced 1,500 tons of chromite ores, containing 41-42 % Cr₂O₃. They have sold 1,500 tons at 140 USD/ton.

For 2009, they have reported production of 500 tons, sold at 140 USD/ton.

The Company offers individual working equipment and transportation for workers.

Every two weeks, the Company hosts orientation meetings, where cocktails are served, or offer s a lunch once a month.

Subject Ateani sh.p.k., exploitation permit no. 405, dated1999; administrator Eng. Agim Hysa and technical supervisor Shemsi Ballabani.

The Company is working in Zone One Batra, Galleries 12, 12A, 12B, 9, and 18. Gallery 12B is being fully renovated. Part of the workings is without supporting, and a part of them with wood and metallic support piles.

They work one shift, with the 25 workers having health (life) and social insurance coverage.

They offer individual working equipment, helmets, outfits, and transportation, for workers, with full meals being estimated at 7,000-10,000 lekë/per person a month.

Technical supervision of the mine is ensured by mining technicians and brigade leaders.

In 2008, they produced 8,000 tons of chromite ores, containing 35-36 % Cr₂O₃. They sold 4,000 tons at 250 USD/ton. Cost of ore extraction – 80 USD/ton, plus cost of transportation and port expenditure at Durrës estimated at 30 USD/ton.

For 2009, they have produced 3,000 tons of chromite ores, containing 35-36 % Cr₂O₃. They have sold 2,000 tons of chromium at 123 USD/ton.

Business is run by a mining engineer on the basis of a daily business order.

Company Ateani sh.p.k., exploitation permit no. 458, dated 19 March 1999; administrator Eng. Agim Hysa and technical supervisor Shemsi Ballabani.

The Company is working at the depth of deposit, *Liqeni i Sopeve* (Lake of Sope). They have designed and constructed core mining workings for a length of 85 ml, with a cross-section of 4.8-5.2 m², advancing at rate of 25 ml/month. Costs are estimated at 500 USD/ml.

They have hired 14 staff, which has life and social insurance coverage. They work one shift, 5 days a week. The Company offers meals, accommodation, working outfits, and transportation for them. Salaries are in the range of 35,000 and 40,000 lekë/month.

Workers are duly instructed, and a business order is issued to that end. The management is made up of mining engineers and technicians who are brigade leaders. There is need for partial supporting, because the formations are basically solid.

By late 2009, they expect to turn out around 300 tons of chromite ores.

Company Alba-Co sh.p.k., exploitation permit no. 548, dated 6 April 2000; administrator and technical supervisor Shemsi Ballabani.

The Company is working on chromite ore body no. 3 – Fushë Lopë, Gallery 8. They work one shift, 5 days a week. All the 11 workers have life and social insurance coverage. They are ensured meals, accommodation, working outfits, and transportation.

In 2008, the Company manufactured 600 tons of chromite ores, containing 43-44 % Cr₂O₃. They sold 270 tons at 512 USD/ton.

For 2009, they have turned out 1,200 tons, containing 43 % Cr₂O₃, of which 800 tons have been sold at 135 USD/ton.

Cost of chromite ore extraction is estimated at 120 USD/ton, and cost of transportation and port expenditure at Durrës at around 30 USD/ton.

Company Herbi sh.p.k., administrator Bajram Lleshi and technical supervisor Hamza Nuzi.

The Company is working on horizon +1320 m, New Zone Batra. They are focussed on Galleries F1, F and E, where they are making use of pillars. They have a total manpower of 33 persons, who have life and social insurance coverage. The Company offers meals, accommodation and transportation for them.

In 2008, they produced 6,000 tons, containing 40-41 % Cr₂O₃, of which 2,600 tons were sold at 300 USD/ton. Cost of production of one ton of chromite ore is estimated at 100 USD/ton, plus cost of transportation and port expenditure at Durrës estimated at 30 USD/ton.

For 2009, they turned out 2,500 tons, containing 40-41 % Cr₂O₃.

Company Alb-Canaj sh.p.k., administrator Urim Canaj and technical supervisor Mehmet Ramlikaj.

The Company is working on Galleries A2-A6, and Gallery C1. They are working to open Gallery F. Cost of production is estimated at 100 USD/ton.

They have a staff of 38, with all of them having life and social insurance coverage. They are offered meals, accommodation, outfits, and transportation.

In 2008, the Company manufactured 7,000 tons, containing 41 % Cr₂O₃, of which 4,000 tons were sold at 350 USD/ton.

For 2009, the Company has turned out 3,000 tons, containing 41 % Cr₂O₃. They have sold 2,000 tons at 125 USD/ton.

Company Kurti sh.p.k., administrator Gëzim Porja and technical supervisor Halil Velisula; Exploitation Permit no. 536, dated 5 January 2000.

The Company is working on horizon +1160 m, New Zone Batra, for the purpose of exploiting the remaining pillars.

Investment for opening a gallery 2,000 m long came to around 200,000 Euro. They have hired 8 workers, who have life and social insurance coverage. The Company offers meals, accommodation, outfits and transportation for the workers. Salaries are between 35,000 and 50,000 lekë/month.

In 2008, the Company produced 330 tons of chromite ores, containing over 42 % Cr₂O₃. They sold 330 tons at 370 USD/ton.

For 2009, they do not foresee any production, as they are renovating the facilities.

Problems:

- Exploitation permits are issued to exploit old stocks of tailings so that some quantity of chromite ore is extracted; contradictions with their holders.
- The Company has applied for bank loans, and has received none.

Company Kurti sh.p.k., administrator Gëzim Porja and technical supervisor Halil Velsula; exploitation permit no. 545, dated 6 April 2000.

The Company is working in Southern Batra for the purpose of exploiting the remaining pillars.

They have renovated a gallery nearly 400 m long, applying open-pit mining.

They have 9 workers, who have life and social insurance coverage. The Company offers meals, accommodation, outfits and transportation for them. Salaries are in the range of 35,000 and 50,000 lekë/month.

In 2008, the Company manufactured 1,800 tons of chromite ores, containing 30-38 % Cr₂O₃, with all of them being sold at 370 USD/ton. Cost of production – 80 USD/ton, plus cost of transportation and port expenditure – 35 USD/ton (transportation – 18 USD/ton and port expenditure – 17 USD/ton).

For 2009, they have turned out 350 tons of chromite ores, containing 30-38 % Cr₂O₃.

Problems:

- Exploitation permits are issued to exploit old stocks of tailings and some quantity of chromite ores; contradictions with their holders.
- The Company has applied for bank loans, and has received none.

Company Ervini sh.p.k., administrator Sulejman Kurti and technical supervisor Hamdi Leti; exploitation permit no. 489, dated 2 August 1999.

The Company's facility includes Gallery 10 Thekën. The gallery was fully renovated along a segment of 800 m. Pillars were used.

In 2008, the Company produced 1,800 tons of chromite ores, containing 38-40 % Cr₂O₃, which is not sold. Cost estimated at 150 USD/ton till Durrës.

For 2009, they have turned out 700 tons. So far, 1,000 tons, containing 38-40 % Cr₂O₃, have been sold at 170 USD/ton.

Salaries vary between 35,000 and 70,000 lekë/month. The Company offers meals, accommodation, outfits and transportation.

Problems:

- For the subjects involved in chromite ore extraction to develop effectively, they should be provided with loans from banks. There is reluctance among banks to give out loans.
- Increase in mining royalty rate is not based on an in-depth study.
- In terms of environment, they need to deal with the tailings spread all over the mine site, and along the newly opened roads.

Company Bledi sh.p.k., administrator Behar Kënga and technical supervisor Jakup Gura.

The Company is working in Galleries 20, 18 and 19 – Thekën, with a length of 800 m, mainly without supporting.

In 2008, the Company produced 2,000 tons of chromite ores, containing 40-41 % Cr₂O₃. They sold 1,000 tons at 130 USD/ton. Cost of production, plus cost of transportation and port expenditure – 120 USD/ton.

They have hired 18 persons, who have insurance coverage. The Company offers meals, accommodation, outfits and transportation. Salaries are between 35,000 and 60,000 lekë/month.

For 2009, they turned out 300 tons of chromite ores, containing 40-41 % Cr₂O₃.

Problems:

- For the subjects involved in chromite ore extraction to develop effectively, they should be provided with loans from banks. There is reluctance among banks to give out loans.
- Mining royalty rate should not be applied evenly across the chromite industry.

- Surface areas, for which exploitation permits are issued, should be expanded.
- In terms of environment – cleaning of surface areas and arrangement of tailings in mine sites.
- No problems with adjacent companies and local government are reported.

Company Keisi sh.p.k., administrator and technical supervisor Shefki Beta.

The Company is working in Gallery +1200 m, New Zone Batra, 2400 m long. The chromite ore is extracted at a height of 1500 m, and is manually transported.

In 2008, the Company produced 2,400 tons of chromite ores, containing 39 % Cr₂O₃. Cost of production, plus cost of transportation and port expenditure – 100 USD/ton. The Company offers insurance coverage and treatment for its 20 employees. Salary is 50,000 lekë/month.

For 2009, the Company has produced 700 tons (plan is 2,000 tons), containing 39 % Cr₂O₃. The prognosis for the ore deposits is around 60,000 tons. They have sold 500 tons at 123 USD/ton.

The Company holds a stock of around 3,500 tons of chromite ores.

Problems:

- For the subjects involved in chromite ore extraction to develop effectively, they should be provided with loans from banks at a reasonable rate. There is reluctance among banks to give out loans.
- Increase in royalty rate is not supported by law, and there is no leeway to undertake actions. We think that it should be lowered. We think that it should be paid by the Ministry of Economy, Trade and Energy, given that it is the officially recognised owner.

- A geological-discovery quota should be paid, which should benefit the Albanian Geological Survey and the Albanian National Agency of Natural Resources.
- The surface area tax should be paid to local government.
- Surface areas, for which mining exploitation permits are issued, should be expanded.
- In terms of environment – cleaning of surface areas and arrangement of tailings in mine sites.
- It is necessary for the ore production and transportation processes to be mechanised.
- Workers' training should be arranged.

Second meeting on 26-29 August 2009

ACR sh.p.k. Bulqiza

The most important meeting was held with the biggest private Russian-Austrian mining Company *ACR sh.p.k.*, which manages the richest and biggest deposit in Albania, Bulqiza. We were received by General Manager of the mine complex, Mr. Petrit DUVA, mining engineer, who briefed us on the situation in the mine and the questions they would have.

This is an underground mine of high-grade chromite ore (from 1948, the year when it was opened, till now, around 15 million metric tons of 40-42 % Cr₂O₃ have been extracted from this mine alone). At present, the mine production is estimated at around 80 thousand tons of 38-41 % Cr₂O₃ per year, which is intended mainly for the ferrochrome production in the Elbasan smelter – Albania, and for export across the main Albanian sea-port, Durrës.

Bulqiza underground and surface facilities register an overall manpower of 700.

According to the last developments in the mine depth, a private company is focussed on implementing a project for the construction of core mining workings in the depths of mine, so as to ensure that the main vertical shaft no. 7, with a

diameter of 5.5 m, helps facilitate all the mining processes in the depths of this important deposit.

It was possible to obtain data on the average salaries, the chromite ore deposits (around 2.5 million tons explored so far), the underground drilling programme carried out by the Company, the cost of ore extraction (run of mine), the cost of transportation to the sea-port, and the current selling price (August 2009, averagely 190-210 USD/tons).

The following were some of the questions raised by the Company's managers:

- Increased (older) age for the mine manpower.
- Preparation of the young generation manpower (young workers), particularly technicians and engineers, who should be ready to cope with future challenges in the mine.
- Government authorities should consider limiting workers' retirement age to not more than 50 years, allowing a specific number of working years in underground mining.
- Provision of meals to workers, the guarding of the facility, etc.
- Endless contradictions over mining permits issued to adjacent companies (small-scale mining operations – almost all of them). Interference with the companies; risks threaten the application of safety rules.
- Ensuring support for this Company and similar companies on the important issue of getting their equipment and machineries through the customs.
- Ensuring electric energy supplying from the national grid, with the price being specifically differentiated for such productive companies.
- Paying off the VAT.
- Ensuring modification of legislation and the royalty rate issue (increased as of the last time), and support with credits and a fiscal frame.

Even though it may not be ranked among the small-scale mining operations active in the chromite extraction and processing industry, given that it has a considerable number of workers (around 600) and has made considerable

investment in mining and the Elbasan ferrochrome plant, this Company is included in the group of the small-scale mining operations because exploitation of chromite ore bodies is related to the activities conducted by the other adjacent small-scale mining operations. Hence, the issues that were taken up by these small-scale mining operations and the *ACR* itself, call for tripartite cooperation among the small-scale mining operations-Government-*ACR*. These issues have been outlined in the report in the section devoted to the *ACR sh.p.k.*, and in the contributions by the adjacent companies.

Third meeting on 24-25 September 2009

BULQIZA

Invitations for attending this meeting were extended to a part of the small-scale mining operations. This meeting was held for the purpose of soliciting their opinions, and hearing from them about their problems and how to improve performance, so as to ensure that companies live up to their obligations, the state institutions help increase effectiveness of and transparency in production, selling of products, and payment of mutual obligations by both the private companies and the Government.

Speaking on behalf of **Company *Klevis sh.p.k.* Mr. Ardian Hida** outlined the following issues:

- Informality surrounds chromite ore production and selling. Unlicensed companies operate round about deposits, licensed mines (which extract chromite ore), and old tailing stocks. They steal chromite ore from the

new stocks (where licensed companies have not enclosed their territory), and sell them to intermediary companies (with or without a license).

- The Government and the banks should support allocation of soft loans for investments so that local companies may increase chromite ore production.
- In the Bulqiza deposit-mine zone, there are problems with Zone D, where mine's surface area is at risk of collapsing and the unlicensed companies pose a risk.
- The public order bodies (police) should step in to fight informality in chromite ore extraction, which is seriously laying the lives of the licensed companies' employees and Bulqiza citizens on the line.
- The exploration and/or exploitation licenses reveal overlapping in the surface areas; therefore, the relevant state structures (the Ministry of Economy, Trade and Energy, the Albanian National Agency of Natural Resources, the Mining Inspection and Rescue Department, and the Albanian Geological Survey) should get involved.

Eng. Sulejman Meta:

- On the basis of a project and agreement among parties (companies), the Government should specify and check the chromite ore exploitation process. There is need for reconciliation of the activities carried by the companies operating next to, above or under one another, so as to avoid exposure through each company's independent effort.
- Final determination of the exploitation surface area, claimed by whatever company applying for a permit, should be a joint decision of all the concerned participatory subjects.

Edmond Isaku spoke on behalf of **Company Isaku sh.p.k.:**

- We have put technical safety and working conditions issues high on our agenda.
- State bodies need to ensure disciplining of the illegal activities carried out by groups of unlicensed people who extract, amass and sell chromite ores. The state bodies should respect and give priority to the licensed subjects, because the latter are paying taxes on a regular basis, and employ a considerable number of workers whom they offer all the relevant treatment.
- The state bodies should see to it that they supervise production, transportation and selling in an organised manner.
- There is overlapping in the surface areas specified in the permits issued, thus preventing observance of distances contained in the projects endorsed by the Technical Council of the Albanian National Agency of Natural Resources, which is duly authorised by the Government as the supervisory body for this issue.
- The royalty rate should be determined in line with a project's implementation stage. For instance, a lower royalty rate should be applied during the early period of investment, where no return on investment has yet recorded.
- Local taxes are very high.
- The Government should intervene to help establish contractual relationships among powerful companies, including the *ACR*, operating in the chromite extraction and processing industry, in the Bulqiza area. A most typical example: exploitation of openings and the very galleries by

adjacent companies without jeopardising and causing danger to companies, such as the *ACR*, and others.

Myfit Durici

The Government should give a thought to the small-scale companies, like ours – the small-scale mining operations – with a view to developing road infrastructure ensuring access to the chromite ore extraction facilities.

Suri Hoxha – Company *Drini-Bulqizë sh.p.k.*

The Company *ACR* has entered the territory assigned to other companies, for instance, Gallery 47.

KRASTA (BATRA)

Shefki Beta – Company *Kejsi sh.p.k.* New Zone Batra.

- The mining royalty rate is much higher. It should be lowered to the rate of 2 %, as it used to be.
- The Government is required to intervene with the banks to ensure that they provide soft and long-term loans.
- Customs duties on imported equipment and machinery should be waived.
- Planned profit tax should not be applicable.
- Income tax should be reviewed.
- The Government should contribute to increasing suitability of the roads for the transportation of chromite ores from the extraction zones to Durrës. The Mat Bridge, located near entrance to Burrel, is not fitting to

carry the chromite ore-loaded vehicles (it has a limited capacity not exceeding 24 tons).

Through its institutions, including the Ministry of Economy, Trade and Energy, the Ministry of Labour, Social Affairs and Equal Opportunities, the Ministry of Education and Science, and the Albanian National Agency of Natural Resources, be it also through support by the World Bank, the Government should develop a plan of measures for the training of manpower, initially, and then, the training of mining technical supervisors, geologists, and markscheiders.

Rexhep Zguri – Company Zguri sh.p.k.

- We are faced with the issue of the renewal of manpower, mining experts and support workers, especially when they are at a young age. They would not stay long with us.

Jonuz Dika – Cani-1 sh.p.k.

- The mining royalty rate has been increased to 4% (from 2%), and it is high.
- We produce chromite ore, and export it across the Durrës Sea-port. It is here that the tricky intermediaries' group come forward.
- We need support in setting up a small producers' rights protection association.
- We want to see a regulated training system for the new workers, even if it entails some financial contribution by the companies.
- Advanced profit tax will inhibit and block our small-scale mining operations dealing with chromium.
- The Government should review the local taxes. They are high.

- Port expenditure has now gone up to 15-17 USD/ton, as compared to around 6 USD/ton.

Shyqyri Peshku – Albanisa sh.p.k.

- There is need to regulate (in writing) the contractual observance of the schedule of exploitation by companies among themselves.

Shyqyri Kënga – Algei sh.p.k.

- We have complied with our Company's obligations:
 - Workers are covered by insurance.
 - Airing has been ensured at all work levels and places.
- Training of workers, and particularly, miners and support workers, and their retention, is ensured by creating:
 - Normal working conditions
 - Living conditions
 - Higher salaries.
- Contracts should be concluded with the mine rescue team (the team should be paid by the companies), which should be kept available along with their vehicle/s for quick intervention. Individuals chosen from among the best trained workers, trained on a constant basis, should comprise the core of the mine rescue team.
- We request that a bank chapter is opened in the town of Krasta.
- The mining royalty rate should be brought back to 2%.

Ramazan Koka – Rushi sh.p.k.

- Workers' training should be run jointly with the local government.

Behar Kënga – Bledi sh.p.k.

- Social insurance contributions should be lowered.

Agim Delia – Krasta sh.p.k.

- The Government of Albania, also through support by international institutions, including the World Bank, should design a programme intended to support increased chromite ore production, workers' training, and reduction in tax wedge during the investment period, in particular.
- Banks should give loans with easy terms. The banks will not be willing to give out loans even if there is a stock of chromite ore products.
- A bank chapter is required to open in Krasta so as to give workers assurance on the money movement.

Meeting with the METE authorities

Meeting with the *Empire* Mining Company

5. CONCLUSIONS AND RECOMMENDATIONS

1. Workings for the opening process, and particularly, the exploitation process, are not carried out in compliance with a project or tripartite agreement (company-Government-company). The reason behind this concerns overlapping in the licensed surface areas. In this case, the respective state bodies, including Ministry, Albanian National Agency of Natural Resources and the Mining Inspection and Rescue Department, should step in and exercise continuous checks so as to establish a schedule of exploitation, horizontally and vertically, and ensure that this schedule is observed.

Contradictions or claims raised by the small-scale mining operations (companies) or the ACR vis-a-vis one another.

The Government should endorse and check how the schedule of exploitation is observed. Reconciliation of effort for the opening of underground workings and the exploitation of chromite ore bodies according to a schedule established on the basis of an agreement among the adjacent companies, and in the event of disagreement, the facilities should be run by a single technical management, and revenues should be distributed in proportion to each partner's (company's) share.

The relevant state institutions should settle the disagreements among adjacent companies, and particularly, between the companies and the ACR sh.p.k.-Bulqiza.

2. In the absence of normally mechanised work processes, most of which are conducted manually.

Improvement in the working conditions through possibly effective mechanisation of the main work processes, including drilling, loading and transportation.

3. Lack of effectively mechanised opening of mining workings, transportation, exploitation sites, and the preliminary ore processing on mine sites (selecting of stones from the extracted ore is done primitively, with hands, on the mine surface area, by workers hired among the local community, chiefly women, who are seeking a job), has led to increased cost for the opening of core-preparatory workings and chromite ore production.

Reduced extraction cost per unit of the workings opened and the chromite ores produced, by effectively mechanising the afore-mentioned work processes.

4. There is a tendency across all the chromite ore deposits-mines in the Bulqiza-Batra area to extract mainly rich chromite ores, containing 38-42% Cr₂O₃, overlooking poor chromite ore deposits, containing 20-30 % Cr₂O₃.

Urging and planning extraction and processing of rich chromite ores within the existing mine territories (they are the majority), which have previously exploited the rich chromite ores only, and in the deposits of poor chromite ores, which were not exploited in the past.

5. Many companies (rather groups of people) have carried out illegal activities in removing chromite ores from the territory of former mines or abandoned galleries. Besides building up informality, not transparency and accountability, such activities endanger people's lives and the surrounding environment.

The central and local government should verify the informal activities carried out by unlicensed persons or group of persons, and ensure that these activities are done away with in the shortest time possible.

For such informality to stop, greater transparency and accountability should surround chrome mining in this zone.

Tables warning against risks to should be posted at all the mining ore facilities, both abandoned and not shut down, the geology facilities, and the areas revealing collapse.

All the licensed subjects handling chromium should officially be required to avoid buying minerals from unlicensed producers, and providing the latter with explosives.

Public order forces and road police should be asked to assist in checking the vehicles carrying chromium towards Durrës or other destinations.

The Prefectures, local government bodies, chairmen of communes and aldermen should be asked to contribute to arranging awareness-raising campaigns against such activity hazardous to life.

The tax and customs bodies should be asked to reinforce checking on the subjects licensed for selling chromium.

6. There is no organised support-consultancy effort (paid chiefly by the private companies, and partly, by the Government and the international institutions), which would stimulate the opening of the private companies' mining facilities so as to increase the chromite ore production, and the training of workers, technicians, administrators and engineers.

The Albanian Government and the international institutions, including the World Bank, should in a rational way support and design plans intended to foster chromite ore production through reviewing Resource(deposit)s' geological-mining stuff, arranging workers' training, and easing fiscal imposition during the investment period, in particular.

7. There is almost total lack of trust in banks' willingness to give out loans for investing in opening core mining workings, or setting up chromite ore processing concentrators, basically simple enrichment plants and hand-picking plants.

Provision of loans with normal easy terms to subjects involved in chromite ore extraction and processing across Albania, and particularly, in the area potentially richest in chromium, Batra-Bulqiza.

8. The new workers' training system, according to the main specialties in underground and open-pit mining, is not regulated. So far, such jobs have been filled by workers, who had acquired their skills in the past, and have been trained by experienced technicians and engineers coming from this chromium-producing zone.

The current advanced age of all engineers, technicians and workers is a prevailing feature that needs to be addressed on the basis of a clear training programme.

Care should be taken to regulate a common training system for new workers, by opening schools-courses of variable duration for the required specialties, by creating conditions to retain them at work, as well as normal working and living conditions, by offering them higher salaries, with all costs being covered by the companies themselves.

Different alternatives should be considered, starting from simple, short-term and cost-effect training, and equipment, to the opportunities for comprehensive and in-depth training, depending on the existing possibilities for funding such other services. The Terms of Reference should include advice on integrating geologic information into other services: the highly educated engineering-technical staff (mine geologists,

accountants, surveyors, mechanics, and electricians), the administrator-manager staff, brigade leaders, shift supervisors, expert workers, including drilling operators and blast men, drivers, and equipment and machinery operators for the breaking-fractioning units.

9. The mine rescue teams are not organised at a regional level, for instance, for Batra-Bulqiza alone. No exercises to cope with situations similar to real life failures in the mines, including collapse, abrupt gas emissions, flow of waters, and rescue of workers in the event of an accident, are carried out.

- *Mine rescue teams should be set up and^[au1] their staff should be trained. Contracts should be concluded with the mine rescue team (the team should be paid by the companies), which should be kept available along with their vehicle/s for quick intervention. Individuals chosen from among the best trained workers, trained on a constant basis how to deal with failures, should comprise the core of the mine rescue team.*

10. There is overlapping in the licensed surface areas, and the sectors' schedule of exploitation is not observed.

The respective state bodies, including the Ministry, the Albanian National Agency of Natural Resources and the Mining Inspection and Rescue Department, should step in and exercise continuous checks, so as to establish a schedule of exploitation, horizontally and vertically, and ensure that this schedule is observed.

11. Companies' unauthorised, uncontrollable and undocumented exploitation of the chromite ores in underground mining workings. Borders for safety

distances between one sector of a company and the other sector/s of another company, are not clearly defined.

The borders of mining areas intended for exploitation should be subject to a mandatory agreement to be concluded among adjacent companies, for the purpose of preventing plausible future hazards and calamities. It should be adopted by the relevant afore-mentioned institutions, which should check its implementation on a constant basis.

12. Technical disciplining in managing the opening, preparation and chromite ore exploitation workings, both underground and at the quarries, is not observed.

Upon issuing exploitation permits either for facilities registering underground mining or those registering open-pit mining, the Government and its relevant institutions should require technical disciplining of mining workings. This should start as early as the preliminary stage of drafting the documentation required to apply for an exploitation permit, and particularly, during the drafting of the yearly draft programmes for carrying out mining workings and exploiting chromite ore bodies.

13. The basic existing geological-mining documentation is sometimes not available to the companies. Following 1990, a part of the former mining enterprises destroyed almost all the geological-mining documentation pertaining to the facility/facilities, or it was taken away by irresponsible persons, formerly technical supervisors.

Through its competent bodies, the Government should identify the location of the existing documentation pertaining to former mines and former geological enterprises,

and make it mandatory that the existing geological and mine documents (plans, geological reports, projections, with all the details necessary for the conduct of activity) at the deposits) for which an application for exploitation permit or a geological discovery permit has been filed, be submitted. The Government should instruct that one copy of them is deposited with the Albanian National Agency of Natural Resource(deposit)s or the Albanian Geological Survey, and in the event that such a copy is not deposited, it should issue instruction that an activity is interrupted until comprehensive geological and mining documentation is obtained, or prepared afresh.

14. No genuine technical and scientific work has been carried out in order to study and apply effective technologies for the processing (enrichment) of poor chromite ores.

An effective technology for the enrichment of the poor chromite ores in the existing, new and future chrome concentrators, should be mastered.

15. **A problem that concern all subjects** includes the situation surrounding the mining sites, which do not comply with the technical safety regulations, especially if they have exploited the outcrops of the ore bodies at quarries. Stairs are either nonexistent, or the existing ones go up very high, and the relevant intermediate landing platforms are not in place. They lead to collapse of large blocks of unproductive rocks, thus endangering the lives of people working in the facility and around it.

Following check on and assessment of the situation, the relevant state bodies should determine the measures to ensure an immediate recovery of the situation. The

production activity should be interrupted until completion of the rehabilitation process, and a technical project for bringing the facility back to normal technical norms, should be developed.

- 16.** Exploitation permits are issued to exploit old stocks of tailings so that some quantity of chromite ores is extracted, without a clear programme and technical project for the normal and risk-free exploitation of these stocks being in place.

Exploitation permits for these chromite ore residue stocks should be supported by clearly defined technical projects, which ensure total lack of risk to the lives of people around them during their exploitation.

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