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*Current Status of FDI and Environmental Issues in Mining in
Turkey*

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FDI in MINING in TURKEY:

Turkey has a wide variety of mineral resources, which are under the control of the state as articulated in the 1982 constitution. At present, the state can grant mineral rights to FDI companies, with up to 100 % foreign ownership, registered in accordance with the laws and regulations of Republic of Turkey. Main points of the related laws that govern mining, and Mineral Resources Potential of Turkey are given in the appendix.

Historically, Turkey has not received as much FDI in mining as her potentials call for. This is mostly due to the investment structure of the mining sector, which has been and still is overwhelmingly controlled by the public companies. Some of the public companies have monopoly on certain minerals, i.e. hard coal and borates or a large share of mining of certain mineral commodities is carried out by the public sector. This has not only prevented the inflow of FDI into mining but also adversely affected the growth of domestic mining companies. After the enactment of Mining Law 3213 in 1985 and the improvements in the atmosphere for FDI, this has started to change. Quite a few well-known mining companies have come to Turkey since then. Currently, 85 FDI companies from various countries are registered for mining. Most of these companies are involved in marble and other dimensioned and polished stones in which Turkey is a major player. Since 1980, FDI companies have invested around 275 million dollars in mining. This is only 0.9 % of the total FDI in Turkey for the same period. A list of prominent FDI companies in Turkey, their areas of interest, share in the local company and current status are given in Table 2 in the appendix.

Among FDI in mining since min 1980's, those made for gold and copper exploration hold an important place. Significant gold deposits have been discovered. Mining and processing investment for Ovacik Gold Mine of Normandy in Izmir has been completed. It has become one of the central environmental and FDI discussion points in Turkey and in the world, indeed. The details of this case will be presented below.

ENVIRONMENTAL PROTECTION in MINING in TURKEY

Environmental regulations were specifically introduced into the Turkish legal system with the 1982 constitution. Before 1982, all environmental protection and reclamation practices in mining were voluntarily in nature and insufficient. After the enactment of Environment Law

2872 in 1983 and Environmental Impact Assessment (EIA) Regulation in 1993, systematic treatment of the matter took effect. A chronological summary of main developments in the environmental legislation in Turkey is given in the appendix.

FDI and ENVIRONMENT in MINING in TURKEY: OVACIK GOLD MINE CASE

Ovacik Gold Mine, owned and operated by a 100 % FDI company, Normandy (formerly Eurogold), is a good example of FDI and environmental issues in Turkey. Many other FDI companies are awaiting the outcome of a complex judicial and executive actions regarding this project.

The company was registered in 1989 and found gold near the village of Ovacik, Bergama (Pergamon), Izmir. The total gold reserves are reported to be around 24 tons Au. The mine will be operated for 8 years, if no more reserves are discovered. . The ore will be mined by both open and underground mining methods, followed by cyanide leaching. Gold and silver dore metal will be produced as the final product. The waste material from the plant will be stored in a water retention type tailings dam lined with clay and geomembrane liners with no discharge into the environment. Furthermore, the effluent from the plant will be subjected to cyanide destruction. The company had prepared an EIA report, even though, it was exempt from it as the mining rights were granted before EIA regulations took effect and has guaranteed to meet the discharge limits set by environmental regulations. As such, from the environmental protection point of view, the mining and processing plant of Ovacik Gold Mine is one of the better examples in the whole world.

However, the mine and the plant was shut down by a decision of the Administrative Appeal Court shortly after its start-up in 1997. The permits granted to the company was sued by local opponents and some NGO's and the Appeal Court ruled that the operation did not bear any benefit to the public at large because of potential dangers posed by cyanide. The Administration considered this decision rather ambiguous as cyanide is used in mining and many other industries and consulted the court for clarification. The court notified the Prime Ministry that the operation in question could be allowed if the risks are minimized. The company added the cyanide destruction unit to its flowsheet and re-applied for the operation permit. The Prime Ministry appointed a team of scientists to evaluate the process and upon the positive opinion of the team, the company were allowed to operate the mine and the plant

for a one year trial period in May 2001. The company has been operating the plant since then and the well-manned environmental department of the company has been periodically publicizing the results of environmental monitoring. Public agencies have also been involved in the monitoring process. So far, it has performed well with regard to the guaranteed environmental limits. In the meanwhile, the opponents of the project have been taking almost every decision of the administration to the court and challenging the operation of the company.

In this unique example, while legislative and executive branch promoted FDI and set the environmental standards, some well organized local people, supported by domestic and foreign NGO's, vehemently opposed the operation. Contradictory and confusing judicial verdicts did not help to resolve the conflict. A new legislative process is underway to reduce the adverse effects of such conflicts on mining companies.

It is believed that if the trial production period at Ovacik Gold Mine is successful in terms of environmental protection, opposition to this project in particular and other mining projects, including quite a few gold mining projects, in general, will weaken and a more favorable investment atmosphere will be created. Thus, more FDI projects in mining are certain to be realized in a not so distant future.

ENVIRONMENTAL PERFORMANCE OF DOMESTIC AND FOREIGN COMPANIES in TURKISH MINING SECTOR:

Environmental performance of any mining company depends on such factors as the legal requirements, the economy of the operation, the location of the mine, the type of operations (open cast or underground mining, physical or chemical processing, etc.), environmental consciousness of the company, the public concern and effective monitoring by related agencies.

At present, comparison of the environmental performance of different mining operations in Turkey is rather difficult as some public or private companies, having started their mining operations before the enactment of environmental regulations, are subject to a different legal standard. For example, the silver mining operation of a state owned company in Kutahya in Central Turkey started in 1985, 12 years earlier than the start-up of the Ovacik Gold Mine and 8 years before the enactment of EIA, and produces silver with the cyanidation process, very

similar to the Ovacik Gold Mine. However, compared to Ovacik Gold Mine, the environmental protection measures taken at this mine, consisting of the containment of the waste material in clay lined dams and natural degradation of cyanide therein, even though sufficient, is rather backward but complies with applicable regulations. A newer copper-zinc company in the Black Sea Region, a joint venture of FDI and located in a densely populated agricultural area, also has a better environmental protection program than the older similar public or private mining operations in relatively remoter areas. It should also be mentioned that quite a few domestic public and private companies, no FDI companies operating in their field to compare with, have voluntarily run sound environmental programs especially in terms of reclamation and re-forestation.

The large share of public companies in the mining sector in Turkey has probably led to some discriminations in favor of the public companies in terms of environmental performance.

FDI in MINING by TURKISH COMPANIES in OTHER COUNTRIES:

Turkey is not as rich in investment capital as other OECD countries. As a result, there are not many FDI in mining by Turkish companies in other countries. No proper statistics are kept on this subject. However, a personal search among mining companies, societies, associations and professionals revealed that up to present only two Turkish companies have invested in foreign countries. One has invested in South Africa in steam coal mining; the other company has investments in Albania in chromite and lead-zinc.

The coal mining company in South Africa is a joint venture of Ankara Greater Municipality, producing 700,000 tpy steam coal and shipping this coal to Ankara to be used as domestic fuel. The company has prepared an EIA report according to the local regulations and it has reclamation practices at its open cast mining site.

At present, no further information was available to the author on the investment of the Turkish company in Albania.

APPENDIX

LEGAL FRAME OF MINING AND ENVIRONMENT IN TURKEY

CONSTITUTION OF REPUBLIC OF TURKEY

ARTICLE 168. *“Natural wealth and resources shall be placed under the control of, and put at the disposal of the state. The right to explore and exploit resources belongs to the state. The state may delegate this right to individuals or public corporations for specific periods. Of the natural wealth and resources, those to be explored and exploited by the state in partnership with individuals or public corporations, and those to be directly explored and exploited by individuals or public corporations shall be subject to the explicit permission of the law. The conditions to be observed in such cases by individuals and public corporations, the procedure and principles governing supervision and control by the state, and the sanctions to be applied shall be prescribed by law.”*

Major laws regulating the exploitation of natural resources:

Quarries Act: Construction stones and aggregates. Rights belong to the land owner. Permits granted by local administrations for smaller lots and shorter periods.

Mining Law 3213

MINING LAW 3213

ARTICLE 2. Names the minerals subject to the provisions of Mining Law 3213. The explicitly mentioned minerals have been classified into five main groups:

- I. Energy Minerals (fossil fuels and radioactive minerals).
- II. Metallic Minerals.
- III. Industrial Minerals (including dimensioned and polished stones)
- IV. Precious Stones.
- V. Gases and waters.

Any mineral or its specific exploitation operation not mentioned in Article 2 can be included in this article upon the application of the right holder, proposal of the Ministry of Energy and Natural Resources and approval of the Council of Ministers.

ARTICLE 4. Defines the ownership of natural resources.

“Minerals, being under the control of and at the disposal of the state, are not under the ownership of the land in which they occur.”

ARTICLE 6. Defines whom mineral rights can be granted by the state.

“Mineral rights are granted to individuals holding the citizenship of Republic of Turkey and able to exercise legal rights, private companies having statutory provisions for mining and established in accordance with the laws of Republic of Turkey, public economic enterprises having mining rights and their joint ventures, and other public entities and administrations.”

MINING PERMITS:

Exploration Permit: 30 months

Advance Mining Permit: 3 years

Mining Permit: 10-60 years.

Only one permit is granted for all the minerals, which may occur in an area. There is no limit on the area of the land, which may be claimed by a permit for minerals other than dimensioned and polished stones and lake waters. Permits are granted on first-come-first served basis.

Turkey has substantial potentials for a wide range of minerals, Table 1. However, not all of them have adequately been exploited.

Table 1. Minerals Resources of Turkey (www.mta.gov.tr)

Mineral	Reserves, tons (Proven and Probable)	Mineral	Reserves, tons (Proven and Probable)
Alunite	4 000 000	Nickel	39 400 000
Antimony	106 306	Peat	190 000 000
Asphaltite	74 370 000	Perlite	5 690 027 600
Asbestos	29 646 379	Pumice, m ³	1 472 964 776
Barite	35 001 304	Pyrophyllites	6 644 000
Bauxite	87 375 000	Quartzite	2 270 287 821
Bentonite	250 543 000	Rare Earths	953 587
Bituminous Shale	1 641 381 000	Rock Salt	5 733 708 017
Boron	1 805 709 953	Sepiolite	13 546 450
Clay (Cer. & Refrac.)	354 362 650	Silver	6 062
Copper	2 279 210	Silica Sand	1 307 414 250
Corundum	3 725 082	Sodium Sulphate	16 536 000
Diatomite	44 224 029	Sulphur	626 000
Dolomite	15 887 160 000	Stronsium	665 072
Feldspar	239 305 500	Talc	482 736
Fluorite	2 538 000	Thorium	380 000
Gold	300-3500	Trona	233 317 680
Graphite	90 000	Tungsten	78 000
Hard Coal	1 126 548 000	Uranium	9 137
Iron	149 925 000	Zeolite	17 931 375
Kaolin	89 063 770	Zinc	2 294 479
Lead	860 387		
Lignite	8 374 372 000		
Magnesite	111 368 020		
Manganese	4 560 000		
Marble, m ³	5 161 000		
Meerschaum (Boxes)	1 483 000		
Mercury	3 820		
Molybdenum	2 670		

ENVIRONMENTAL REGULATIONS AND MINING IN TURKEY

Environmental protection is a constitutional requirement through related laws.

ARTICLE 56. *“Everyone has the right to live in a healthy, balanced environment. It is the duty of the state and citizens to improve the natural environment, and to prevent environmental pollution.
.....”*

1970’s: No legal requirements for environmental protection. Voluntary reclamation started.

1980’s: Environment Law 2872 passed.

- ▶ Principle: Polluters shall pay for clean up.

Mining contractors were required by contract to remove topsoil and overburden separately.

1993: Environmental Impact Assessment Regulation was enacted.

- ✓ Preliminary Environmental Impact Assessment (PEIA):

- ▶ Carried out by the companies

- ▶ For light industries, including mine exploration and certain small-scale mining,

- ▶ Areas for PEIA are enumerated in the regulation.

- ▶ Lesser detail

- ▶ When impact is significant: Environmental Impact Assessment is required.

- ▶ When impact is insignificant, permission is granted.

- ✓ Environmental Impact Assessment (EIA)

- ▶ For heavy industries, including most mining operations.

- ▶ Areas are enumerated in the regulation.

- ▶ A fixed format to be followed.

- ▶ EIA report to be evaluated by involved parties, ministries, administrations, etc.

- ▶ Positive: Permission is granted.

- ▶ Negative: Permission is denied.

2002: A new Environmental Impact Assessment Regulation is expected to replace 1993 regulation.

- ▶ PEIA will be removed.

- ▶ Administration will decide upon application if EIA is necessary.

- In compliance with EU regulations.

- ▶ A unique EIA format will be designed for every project.

FOREIGN INVESTMENT REGULATIONS:

FDI companies have to be registered in Turkey in accordance with the laws and regulations of Republic of Turkey. No limits are imposed on the share composition, i.e. 100 % of the shares could be owned by foreign partners. There are certain incentives granted to FDI companies. They enjoy the same rights as national companies. Unfavorable conditions encountered in practice is continuously being improved. For more information: www.hazine.gov.tr.

Table 2. Major FDI companies in Mining in Turkey (marble is not included).

Name of company	Country of origin	Name of local company	Share in local company, %	Year of registration	Areas of interest	Current status	Environmental performance
Societe D'Interests Magnesians	Holland	Magnesit A.S.	99,99 (100,0)*	1963	Magnesite	Operating in Eskişehir	Not problematic
Metallurg Inc.	USA	Türk Maadin A. S.	98,7 (98,7)	1984	Chromite	Operating in Central Turkey	Not problematic
S.G. Resources B.V.	Holland	Tüprag A.S.	99,99 (100,0)	1986	Gold	Deposits found in 5 provinces. Production pending.**	N/A
Sud Chemie Mining	Germany	Süd Chemie Tr Madencilik ve Tic. A.Ş.	100,0 (100,0)	1987	Industrial minerals, bentonite	Operating in Ordu	Not problematic
Cominco Resources Int.	Canada	Cominco Madencilik Sanayii A.Ş.	99,96 (100,0)	1988	Gold, copper, zinc	Gold in Artvin is pending**	N/A
Autin Investment B.V.	Holland	Normandy Madencilik A.Ş.	99,00 (100,00)	1989	Gold	Ovacik gold mine is in trial production followed by a legal-civil-administrative battle.	Cyanide raised concern. High caliber environmental protection program in place.
Corona Corporation	Canada	Dardanel Madencilik A.Ş.	99,80 (99,95)	1991	Gold and copper	Exploration for gold and copper. Pending**	N/A
Compagnie Int. Dev. (CIDEM)	France	Soylu End. Min. ve Ürt. San. Tic. A.Ş.	95,00 (95,00)	1992	Industrial minerals	Operations in Aegean Region	Not problematic.

Richard C. Moores	USA	YAMAS	99,99 (99,00)	1996	Gold and Copper	Exploration***	N/A
Rio Tinto Mining Exploration Ltd.	England	Rio Tinto Mining Exploration Ltd. Turkey Branch	(100,00)	2000	Gold and copper	Exploration***	N/A
BHP Holdings Inc.	USA	BHP Maencilik Ltd.	90,00 (100,00)	2001	Gold and copper	Exploration***	

*Total share of FDI.

**Almost all the pending operations are awaiting the final settlement of Normandy case unless otherwise indicated.

***Operations will be affected by the Normandy case.