



**SCREENING CHAPTER 20
ENTERPRISE AND INDUSTRIAL POLICY**

AGENDA ITEM XIX: METALS AND OTHER MATERIALS

**Country Session: The Republic of TURKEY
4-5 May 2006**



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Overview

- Turkey possesses diverse mineral resources.
- The most important minerals are:
 - ✓ Boron salt, marble, magnesite, dolomite, barite, feldspar, pumice, zeolite, bentonite, diasporite, trona, sepiolite, diatomite, kaolin, gypsum and perlite as industrial raw materials
 - ✓ Chromium, copper, zinc, lead, silver and gold as metallic raw materials.



Overview (CONT'D)

Mean Features

- In pursuance with Mining Law, minerals are under the ownership and sovereignty of the State and not considered to be the property of the landowner where they are found except sand and gravel.
- Government grants mining licences for a defined period of time.



Overview (CONT'D)

Share of mining sector in GDP

	Mio. Euro	%
2003	2,280	1.10
2004	3,380	1.20
2005	4,125	1.43

Source: TURKSTAT



Overview (CONT'D)

Reserves

Turkey is a rich country in both industrial and metallic minerals, compared to the EU average,

In comparison to the average values in the world, it could be concluded that Turkey* is a rich country in industrial minerals (20 billion tones corresponding to 2.2 % of the world reserves while the national metallic minerals amount to 140 million tones, corresponding to 0.6 % of the world reserves).

* Turkey has 0.5 % share of the land in the world



Overview (CONT'D)

World share of metallic minerals reserves

• Antimony	2.73 %	• Zinc	0.50 %
• Mercury	1.59 %	• Copper	0.29 %
• Chromium	1.44 %	• Aluminum	0.26 %
• Silver	1.06 %	• Tungsten	0.12 %
• Gold	0.67 %	• Manganese	0.09 %
• Lead	0.61 %	• Iron	0.03 %

Source : USGS Min. Com. Sum. 2005, MTA 2005



Overview (CONT'D)

World share of industrial minerals reserves

• Perlite	74.00 %	• Barite	4.73 %
• Boron Salts	72.00 %	• Magnesite	4.35 %
• Marble	40.00 %	• Trona	2.11 %
• Na-feldspar	19.14 %	• Kaolin	0.65 %
• Asbestos	14.82 %	• Fluorite	0.53 %
• Bentonite	13.40 %	• Na-sulfate	0.36 %
• Pumice	9.74 %	• Phosphate	0.14 %
• Common salt	9.40 %	• Corundum	0.12 %
• Celestite	5.54 %	• Sulfur	0.04 %
• Diatomite	4.81 %	• Talc	0.04 %

Source : USGS Min. Com. Sum. 2005, MTA 2005



Overview (CONT'D)

Major metallic minerals production

Mineral	Reserves (tonnes) ¹	Number of Production Permits ²	Production Amount (tonnes) ^{1, 2}	
			2003	2004
Gold	338	70	5	0
Copper	1,697,204	107	58,000	49,000
Silver	6,062	62	95	73
Chromium (as Cr ₂ O ₃)	5,186,275	383	201,921	467,334
Zinc	2,294,479	154	2,499	77,015
Lead	860,387	113	17,500	18,650

Source: ¹ MTA, ² General Dir. Of Mining Affairs



Overview

Natural stone production

	Number of Production Permits ¹	Production (m ³) ^{1, 2}	
		2003	2004
TOTAL	1652	1.538.872	1.922.495
Andesite	44	31.002	31.500
Diabase	6	622	790
Ignimbrite	12	7.705	39.820
Marble	1328	1.300.637	1.207.584
Granite	57	106.169	41.676
Onyx	11	176	57
Travertine	194	198.730	601.068

Source: ¹ General Directorate of Mining Affairs, ² MTA,



Overview

Aggregate Production

	Number of Production Permits	Production (tonnes)	
		2003	2004
Aggregate	303	61.421.371	66.502.205

Source: General Directorate of Mining Affairs



Overview

Industrial Mineral Production

Mineral	Reserve (tonnes) ¹	Number of Production Permits ²	Production Amount (tonnes) ^{1, 2}	
			2003	2004
TOTAL*		1354	27.205.745	30.720.617
Gypsum	52.815.215	55	2.354.234	2.300.703
Barite	35.001.304	39	113.254	113.775
Bentonite	250.543.000	65	945.925	1.281.468
Dolomite	15.887.160.000	90	5.716.599	7.071.625
Feldspar	239.305.500	230	3.396.326	3.936.742
Perlite	5.690.027.600	45	330.184	366.489
Pumice (m ³)	1.479.556.876	145	2.167.277	2.426.037
Sepiolite	13.546.450	19	31.885	19.554
Diaspor	3.725.082	15	5.458	11.953
Boron Salt	1.805.709.953	42	2.424.185	2.261.977

*Total includes all industrial mineral production

Source: ¹ MTA, ² General Directorate of Mining Affairs



Overview (CONT'D)

Employment in the Mining Sector

	Number of enterprises	Annual average of employees		
		Total	Operatives	Administrative and other workers
Total	1 767	73 144	61 302	11 842
Public	576	54 519	44 591	9 928
Private	1 191	18 625	16 711	1 914

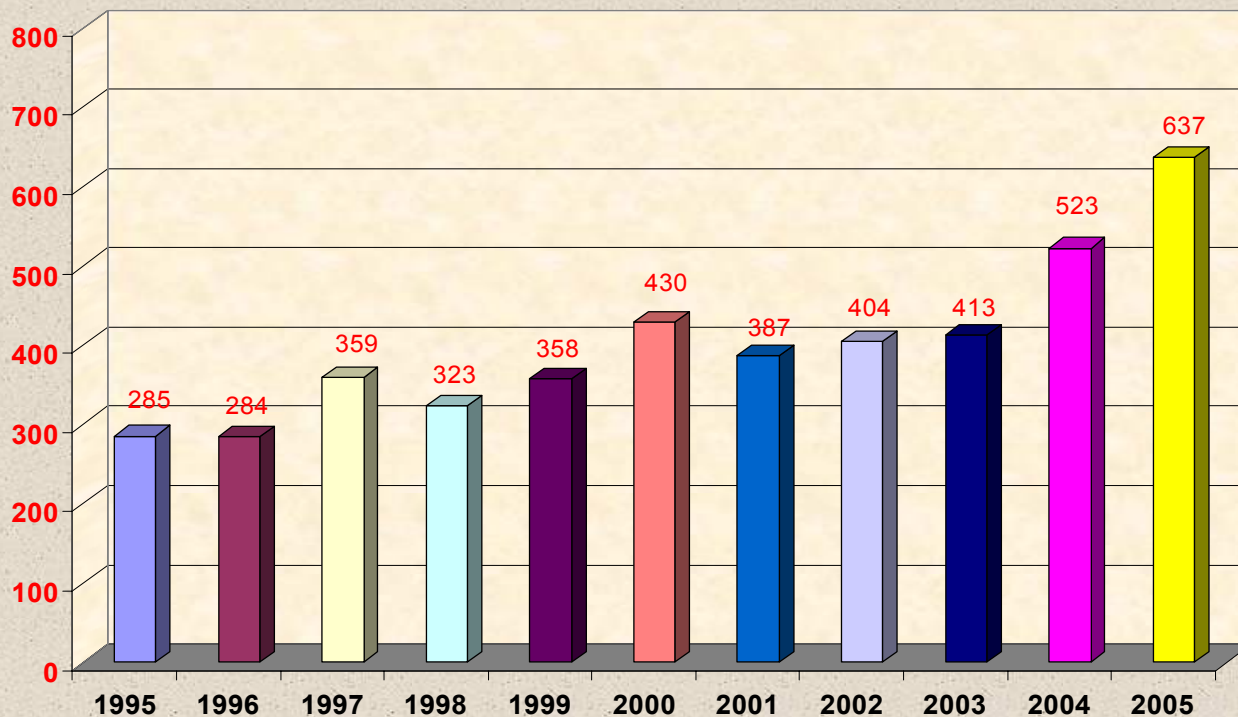
Source : TURKSTAT, Industry Census, 2001



Overview

Mining Exports

Mio. Euro



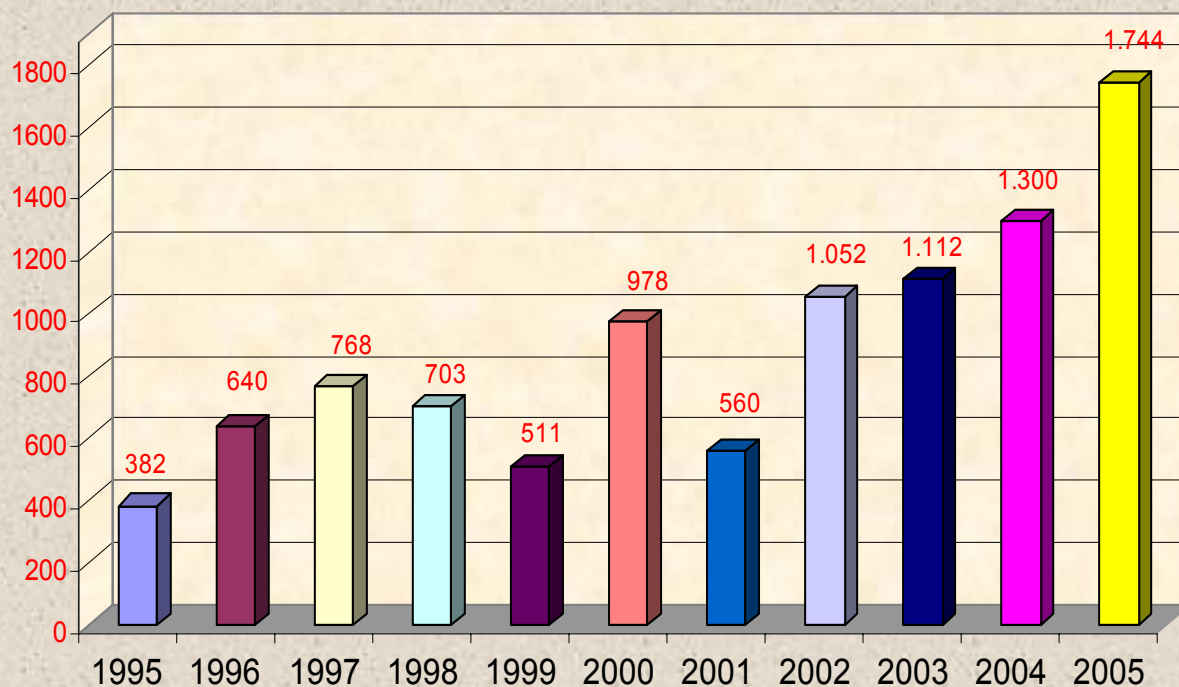
Source: TURKSTAT



Overview

Mining imports

Mio. Euro



Source: TURKSTAT



Competitiveness

- The mining law and related by-laws were amended in 2004 to increase competitiveness.
- Exploration license is granted in one day.
- Exploitation license is given after getting all permits, and all permits have to be finalised in 3 months.
- Many metallic mines such as chromium, aluminum, copper and silver have been privatised.



Policy Documents

- **8th Five Year Development Plan**
 - To develop production of existing materials,
 - Privatisation of certain publicly owned metallic mines (most of them have already been privatised),
 - Sector will be encouraged to export treated material instead of importing raw material,
 - To develop deeper mining exploration,
 - To promote safer working conditions,
 - To ensure supply security of raw materials.
- **Medium Term Programme (2006 – 2008)**
 - To Increase the global competitiveness by producing high quality products,
 - To encourage the mineral processing in the country,
 - To improve supply security with high quality materials,
 - To increase refined boron salt production capacity,
 - To develop exploration activity for energy and industrial raw material.



Legal Framework

- Mining Law No 3213 which is amended by the Law No 5177
(Official Gazette, 2004/25483)
 - ✓ By-law on the application of the Mining Law.
(Official Gazette 25716, 2005)
 - ✓ By-law on the application of Mining Law on I(a) Group (sand and gravel).
(Official Gazette 25716, 2005)
 - ✓ By-law on mining activities permission
(Official Gazette 25852, 2005)
 - ✓ By-law on the Health and Safety Measurements for Mines
(Official Gazette 25380, 2004)



Mining Law and Environment

- Environmental affects of mining activities are included in the legislation of Ministry of Environment and Forestry.
- Every mining activities must comply with EIA procedures.
- The EIA can not be approved if any negative effect on environment is foresighted.



INSTITUTIONS INVOLVED

Ministry of Energy and Natural Resources	Defines general policy and strategy for the sector
General Directorate of Mining Affairs	Grant mining licenses and supervise mining activities and permits
General Directorate of Mineral Research and Exploration	Perform mining explorations and prepare geological maps
General Directorate of Turkey Coal Enterprise	Perform lignite explorations and production
General Directorate of Turkey Hard Coal Enterprise	Perform hard coal explorations and production
General Directorate of ETI Mine Enterprises	Perform special mineral (especially boron salt and Perlite) explorations and production.
Governership of Provinces	Grant mining licenses and supervise mining activities and permits for aggregates



CONSULTATION MECHANISM

Ad-Hoc Committee on mining.



INSTRUMENTS

- On Going Projects
 - ✓ Twinning Project
 - ✓ Preparation of By-law on Mining Waste in coordination with Ministry of Environment and Forestry



PUBLIC SUPPORT PROGRAMMES

Institution	Basic Programmes
Undersecretariat of Treasury	Support for investments, Regional development, SMEs
Undersecretariat for Foreign Trade	Support for training, R&D and SMEs
Turk Eximbank	Export credits and insurance
KOSGEB	Support for SMEs
Ministry of Finance, Turkish Revenue Administration	Tax exemption and exceptions, public land sales, regional aid
Ministry of Industry and Trade	Regional aid, R&D support (Organised Industrial Zones, Technology Development Zones)
TUBITAK	Support for R&D



Thank you for your attention