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GOVERNMENT POLICY
AND
THE EXPLOITATION OF TURKISH MINERAL RESOURCES
(1943)

A thesis presented to the Department of Economics
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fulfillment of the requirements for the degree of
Master of Arts in Economics.

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P R E F A C E

The preparation of this thesis entailed unforeseen difficulties. To overcome them, enormous efforts were made. As to the accuracy of the work the writer cannot presume to have been completely free from errors of fact and judgement.

The data for the thesis were gathered, mainly, from the Turkish government and private publications, and from the Turkish government officials in charge of mining.

The arrangement of the thesis has been made in such a manner that facts and analyses were not mixed. The first chapters were devoted to facts about mining and the latter chapters to government policy and mining problems.

Utilizing this opportunity, the writer wishes to thank all those whose assistance has been received. Professor Charles Campell and Mr. George Hakim of the Economics Department of the University, the two supervisors of this work, and Messrs. Rahmi Ören and Reshit Genjer of the Mining Department of Turkey rank first amongst those to whom the writer will forever remain in real debt.

Haroon Kh. Rifaat.

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I. INTRODUCTION

A. The International Aspects of World Mining
and Turkey.

1. Increasing Demand for Minerals

2. Interdependence of Nations

3. Exploitation

B. Significance of the Study.

INTRODUCTION

A. THE INTERNATIONAL ASPECTS OF WORLD MINING AND TURKEY.

Due to the speeding up of industrial life and its spread through backward nations mining is becoming an international problem.

World history since the industrial revolution has demonstrated the necessity of industrial power as a basis for political and military supremacy. But the industrial power is not only a matter of superior enterprise of the peoples, but a response to unusually favorable environmental conditions providing the necessary raw materials or, more precisely, the essential mineral resources.

Nations realizing the vital need for minerals have applied policies to protect their own supplies and, at the same time, secured new supplies abroad. Thus the problem has become international in scope, not through political intent, but by force of commercial circumstances.

This international problem is determined by certain factors which directly affect mining in Turkey.

1. Increasing demand for minerals. The quest of iron and copper and flint for use as weapons, and of gold and silver and precious stones for adornment and art, runs far back into history and is associated with many stirring events of exploration and war. But minerals were used on a relatively small scale, even as late as the French Revolution, and constituted only a minor factor in the environmental conditions influencing human activities.

With the advent of Industrial Revolution, a little more than a century and a half ago, began the real exploitation of the earth's minerals in a way to influence essentially our material civilization. In this short time, at an even accelerating rate, minerals have become a fundamental basis of industrialism, to be ranked with soil, climate, and other major influences on our activities. In a hundred years the output of pig iron, copper, and mineral fuels has increased a hundred-fold; more mineral resources have been mined and consumed in the last twenty years than in the world's preceding history; and the world production of several essential minerals has been doubling about every ten years. (1)

This factor, increasing demand for minerals, is expected, in the long run, to lead to increased production of minerals from the appreciable Turkish reserves. This possibility will be further hastened by the exhaustion of some of the world mineral resources that are being fully exploited at present.

2. Interdependence of nations and concentration of commercial control of minerals. A consequence of concentration of mineral production in scattered localities is that the nations are mutually interdependent in regard to mineral supplies. Even the most favored nation must look outside of its boundaries for essential minerals, and many nations lack almost all the necessary minerals.

Furthermore, there is a growing tendency toward specialization in minerals among the nations. The United States, for instance, has led the world in the production

(1) C.K. Leith, "World Minerals and World Politics", 1931, p.4.

of oil and copper. In a similar way Great Britain has dominated the tin industry and Germany the potash industry. Competition by the other nations has become increasingly difficult, because nowhere else is there the same combination of raw materials and organization to do the job as efficiently.

This situation, the interdependence of nations, is new, because large scale production in industry has been of recent growth. It raises new political questions which bear on the future orderly development and peace of the world.

The interdependence of nations is further complicated by the concentration of commercial control of world minerals. Large deposits are coming under fewer and larger units of commercial control at a rate which is still accelerating. For some minerals there is already an approach to world monopoly by single companies or cooperating groups of companies, as illustrated by nickel, vanadium, aluminum, potash, asbestos, mercury, diamonds, bismuth, sulphur, and natural nitrates. For the other minerals the control is more divided, though still in sufficiently few hands to make world cooperation potentially possible. In this category may be mentioned copper, iron, lead, oil, tin, and manganese. Two companies control 34% of the world's copper production. (2) Five oil companies produce 35% of the world's petroleum. (3) The fact

(2) Ibid., p. 14.

(3) Ibid., p. 14.

that the movement toward monopoly control has gone much further for some minerals than for others is due, for the most part, to physical conditions in the industries themselves, such as the size and geographic distribution of the principal reserves.

Thus far the commercial control of minerals is lodged first in the commercial organizations of the United States, second in those of Great Britain. Fully three quarters of the world's mineral production and reserves are controlled by these two countries. Competition for further control is now going on between these two countries.

Commercial control has taken varied aspects. It consists of ownership of the mineral reserves, or it is exercised indirectly through ownership of smelters, refineries, pipe lines, and transportation lines, or through selling agencies, cartels, or associations of one kind or another.

The interdependence of nations due to the concentration of mineral production in scattered localities and the concentration of commercial control of minerals in fewer hands will most probably lead to cooperation between Turkey and other mineral producing and consuming countries. The other nations involved in the necessity for international movement of minerals will be naturally drawn towards Turkey for understandings and agreements to make this movement possible.

3. Exploitation. A consequence of vast demand for minerals has been the necessity for finding and developing adequate sources of mineral supplies wherever they may be found. This effort has naturally originated in countries

with prosperous mineral industries and has not stopped with national boundaries. The American oil, copper, iron, aluminum and other mineral industries have become leaders in exploitation of these minerals abroad. Foreign exploitation has become more and more a conspicuous element in the mineral picture. Large known or potential mineral reserves still exist in many countries without the capital, initiative, or skill necessary for development. Exploitation by foreign capital is necessary to make such minerals available to the world.

This tendency on the part of all the nations to exploit their own potential reserves or those of other countries directly affects Turkey. When mining is not confined into the national boundaries of each nation Turkey confronts two alternatives one of which she has to follow, either exploit the mineral resources or be exploited. The military strength of Turkey and the progressive economic policy of her government have prevented Turkey's being a playground for rival international mining companies. On the contrary, her political power has enabled her to have access to foreign capital. Until recently not much of foreign capital has been utilized, but in the future the government policy may change, provided the financially and technically better equipped international companies are not backed by their governments. Under such conditions foreign capital may be allowed to play a role in the exploitation of Turkish mineral resources.

B. SIGNIFICANCE OF THE STUDY.

Apart from fulfilling partially the requirements for the degree of Master of Arts in Economics, this work has

another purpose. Considering the relation between the world and Turkey, it, by exposing mining in Turkey, will be giving an idea as to the future possible contributions of this country to the industries of the world. Herein lies its significance.

II. A BRIEF HISTORICAL BACKGROUND TO MINING
IN TURKEY.

A. The Ottoman Period

1. The Period of development
2. The period of decline

II

A BRIEF HISTORICAL BACKGROUND TO
MINING IN TURKEY.

(1)
History of mining in Turkey actually begins with the mining done by the Hittites and the Seljuks, but the information concerning these two periods, the Hittite and the Seljuk periods, is so scanty and to a certain extent inaccurate that they will be given no place in this brief chapter (2).

A. THE OTTOMAN PERIOD.

The Seljuk period was followed by that of the Ottoman Turks whose history of mining reflects two stages:

1. The period of development. During this period of the history of Ottoman mining (1500-1750) mining was a flourishing industry. Encouraged by the Ottoman Government the mine-owners, whether individuals or groups, scored unprecedented production records. Amongst the important mines of the time were the iron mines of Divrik, the silver mines of Geumüşhane (Gümüşhane), the copper mines of Ergani, and the lead mines of Keban. The minerals exploited were used mainly in the manufacture of armaments.

- (1) The word "Turkey" includes mainly the Anatolian peninsula and the history of mining refers to mining activity in this area. Consequently, development of Turkish mining in central Turkestan is excluded in this thesis.
- (2) All that is known about the above-mentioned two periods is that the Hittite and the Seljuk kingdoms had their civilisations based on the skillful use of the metals available. The Hittite kings are mentioned to have exported iron and copper to Egypt much before (about 4000 B.C.) the Christian Era.
- Ministry of Economics, "Turk Hukuk Tarihi", 1928, p.34.

2. The period of decline. This second stage (1750-1910) was a natural outcome of a constantly degenerating empire. Neglected by the State, and ignorant of the improving conditions in mining outside Turkey, the mine-owners worked to the detriment of mining. At times the government took half measures in the second half of the nineteenth century, such as fixing the prices of minerals, prohibiting the exportation of gold and silver and attempting to encourage the exportation of chromium, copper and of coal which was recently discovered. But failure to keep up with the new methods of mining was the main reason for the decline in mining, and unless this was done the Turkish minerals could not compete in the world markets.

This decline was accelerated by continuous wars that brought mining to a standstill in 1923⁽³⁾. During this year, out of the 735 mines only a few were being exploited and to the present regime these alone were handed over.

(3) In 1911 the Italo-Turkish War of Tripoli broke out. This was followed by the Balkan Wars of 1912, the Great War of 1914, and the War of Independence of 1919 which lasted until 1923.

III. SIGNIFICANCE, GEOGRAPHIC LOCATION, SIZE AND
GENERAL CHARACTERISTICS OF MINERALS AND MINES
OF TURKEY.

A. Coal

1. Significance
2. Geographic location
3. Size of the mines
4. General characteristics of coal

B. Lignite

1. Significance
2. Geographic location
3. Size of the mines
4. General characteristics of lignite

C. Chromium

1. Significance
2. Geographic location
3. Size of the mines
4. General characteristics of chromium

D. Copper

1. Significance
2. Geographic location
3. Size of the mines
4. General characteristics of copper

E. The Other Less Important Minerals and Mines

1. Significance
2. Geographic locations of these minerals
3. Sizes of the mines
4. General characteristics of the minerals and mines

III

SIGNIFICANCE, GEOGRAPHIC LOCATION, SIZE
AND GENERAL CHARACTERISTICS OF
MINERALS AND MINES OF TURKEY

A. COAL

1. Significance. Coal constitutes Turkey's most important mining industry. Its main significance lies in its being an essential source of power for the infant industries of Turkey and a source of heat for homes. Furthermore, the Turkish transport system, the railways, is dependent on the coal mined locally.

Apart from the above-mentioned uses of coal, the industry itself is useful as a source of permanent and temporary employment ⁽¹⁾. Coal-mining employs not less than 24,000 people, 16,000 of whom work in the mines and the rest in its shipping ⁽²⁾. During one year alone, ⁽³⁾ in 1937, L.T. 4,353,305 were paid as wages to the miners.

2. Geographic location. The coal deposits of ⁽⁴⁾ Turkey occur in the following four principal regions:

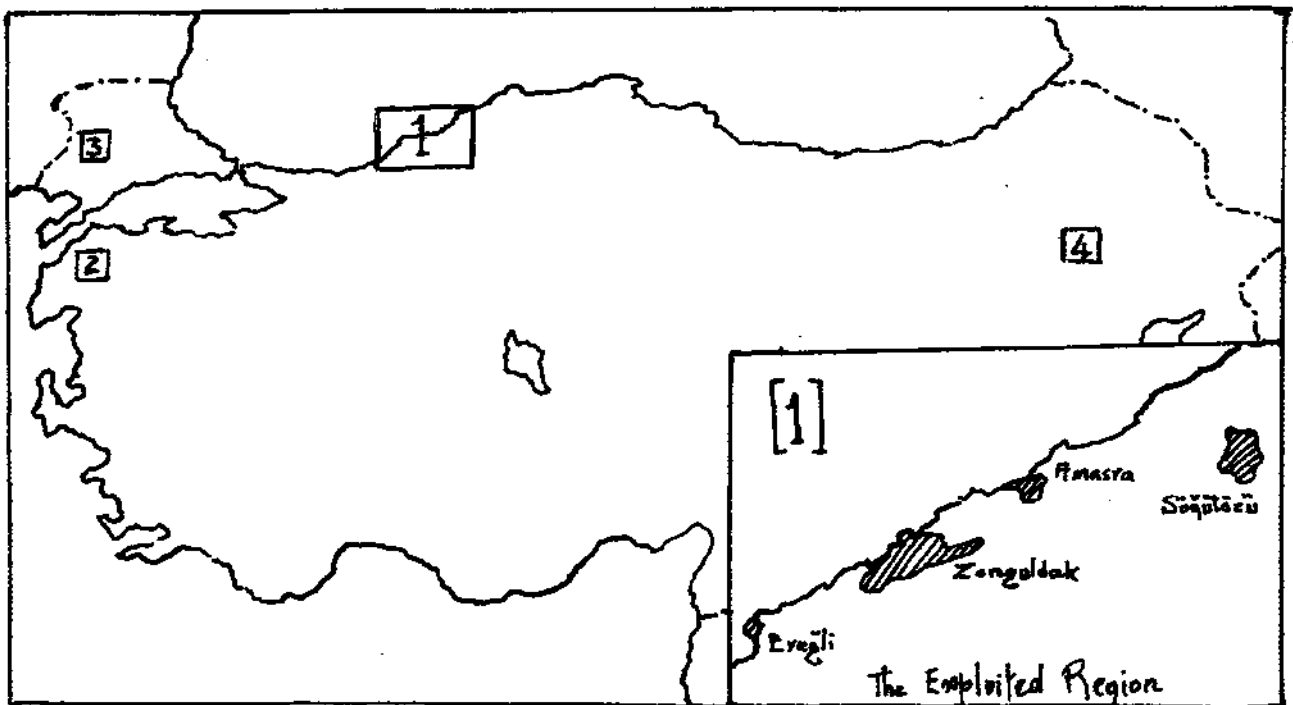
- a. Zonguldak - Ereğli
- b. Tchanakkale (Çanakkale)
- c. Thrace (Rumeli)
- d. Erzurum

- (1) Permanent employment signifies work given to professional miners. Temporary employment is work granted to farmers who can do some mining at their spare times.
- (2) Sixteen years average (1923-1938), "M.T.A.", (Institute of Mining Survey and Research), Year 4, No. 3, October 29, 1939, p. 6.
- (3) T.C. İktisat Vekaleti (Ministry of Economics of Turkey), "Maadin Umum Müdürlüğü", (Department of Mining), "1936 ve 1937 Maden İstatistigi", (1936 and 1937 Mining Statistics), October 29, 1948, p. 74.
- (4) See Map. I, p. 10.

The most important region and the only one that is exploited at present is the Zonguldak-Eregli basin. It is situated at the seashore in the district of Zonguldak—a north-western vilâyet of Anatolia. The chief centers of production in the same basin are Kemseagzi (Köseagzi) and Aladjaagzi (Alacağzi) of the eastern end and Kozlu, Zonguldak and Kilimli on the western end.⁽⁵⁾

Map I⁽⁶⁾

The Exploited Zonguldak-Eregli Basin



deposits:

3. Size of the mineral This exploited coal basin is of considerable size. The production centers are within a length of 170 kilometers and have an average width of 50 kilometers⁽⁷⁾. The western starting point of the coal

(5) See the corner map of Map I, p. 6.

(6) T.C. İktisat Vekâleti, "Maaden Umum Müdürlüğü", 1936 ve 1937 Maden Statistigi, p. XII.

(7) Türkofis, (Turkish Office), "Commercial Directory of Turkey", 1937, p. 125.

beds is at Gun Agzi (Gün Ağzi), a point to the east of Eregli and very close to the western production centers of the basin. The coal beds end on the east at Seugutagzi (Söğütğzi) - a point near the eastern production centers of the beds.

4. General characteristics of coal: Numerous surveys undertaken with a view to estimate the richness of this basin have shown that one square kilometer will yield as much as 40,000,000 tons of coal⁽⁸⁾, which is of several commercial types. Its analysis indicates a high degree of heating power⁽⁹⁾.

B. LIGNITE

1. Significance: Lignite comes next to coal in importance. It is the second important source of heat energy in Turkey. It is believed that in the future lignite will rank as important as coal as the great potentialities are more fully exploited and the law encouraging the substitution of coal by lignite is more fully realized⁽¹⁰⁾.

2. Geographic location: Lignite exists in numerous parts of Turkey. The main lignite beds, however, are in western and eastern Anatolia and to these beds alone reference will be made.

(8) Ibid., p. 125.

(9) Ibid., p. 125.

(10) Concerning this law, see Chapter VII, 3, b, p. 53.

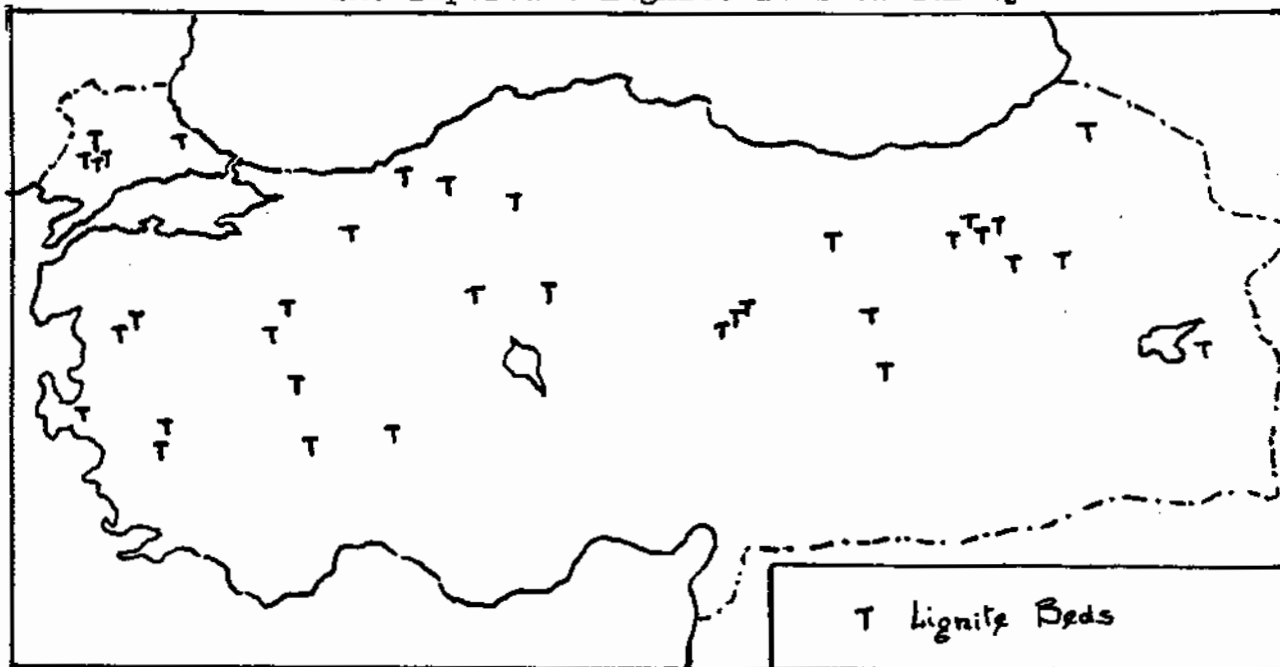
a. The Western-Anatolia lignite beds: This group of lignite beds comprises the exploited mines of Deghirmisaz (Degirmisaz), Tawshanli (Tavşanlı), Soma and Nazilli⁽¹¹⁾.

In the same section of the country a new bed has been recently discovered by the Institute of Mining Survey and Research in the region of Seyit-Oemer (Seyit-Ömer) which is about twenty kilometers distant to the north of Kutahya (Kütahya).

b. The Kizil-Irmak Basin and Eastern-Anatolia lignite beds. Most of these beds - like those of Geremek, Vazildan, Namrum and Arifeli, all of which are near the city of Sivas, are not yet exploited. The only beds under exploitation in this area are those of Cheltik⁽¹²⁾ (Çeltik) and Soma⁽¹³⁾.

Map II

The Important Lignite Beds of Turkey



(11) See Map II, p. 12,

(12) See Map II, p. 12.

(13) İktisat Vekaleti, M.T.A. Enstitüsü, "Zonguldak Maden Tatbikat Mektebi", (Practical Mining School of Zonguldak), 1939, p. 5.

deposits:

3. Size of the mineral Data concerning the sizes of the individual mines are not yet available except that of the newly discovered Seyit-Ömer region which covers an area of 872 hectares and contains 84,000,000 tons of lignite reserves ⁽¹⁴⁾. It is believed that this region is ⁽¹⁵⁾ the largest bed yet known in the country.

4. General characteristics of lignite: Among the different kinds of lignite mined in Turkey that of the Degirmisaz is of the best quality - excellent for use in homes and locomotives.

In general the beds are suitable for open-air mining. The most suitable, however, is that of Seyit-Ömer region ⁽¹⁶⁾.

C. CHROMIUM

1. Significance: Chromium is one of the important minerals of Turkey. Its significance does not lie in its being absolutely necessary to local industry. As a matter of fact all the chromium that is extracted is exported. But chromium has an indirect value. Turkey, as a leading chromium producer and exporter of the world, is annually ⁽¹⁷⁾ supplied with large quantities of foreign exchanges. This means that Turkey is enabled to import more - a greater quantity and variety of foreign goods - than she would have otherwise done if she could not export chromium.

(14) "Kömdür", (Coal), p. 22 and "M.T.A.", Year I, No. 5, Oct. 29, 1936, p. 29.
(15) "M.T.A.", Year I, No. 3, July 1936, p. 14.
(16) Ibid., p. 14.
(17) During the first five months of 1939 alone, Turkey acquired, from the sale of chromium, foreign exchange totalling L.T. 2,428,719. "M.T.A.", Year 4, No. 3, July 1939, p. 6.

2. Geographic location: Up to the present time more than a hundred chromium beds have been discovered in Turkey (18). Of these beds the productive ones may be divided into the following regions: (19)

a. The region of Kutahya-Bursa: In this region the exploited mines are those of Karluyer, Dagardu and Kozludja (Kozluca).

b. The region of Eskishehir (Eskişehir);

c. The oriental region: This region comprises the chromium mines of Guleman, the most important bed, and the other lesser important mines of Kundikasi, Savidag and Elazig.

d. The region of Mersin;

e. The meridional region: The rich beds of Fethiye, Marmaris, Keuydjegiz (Köyceğiz) are in this region.

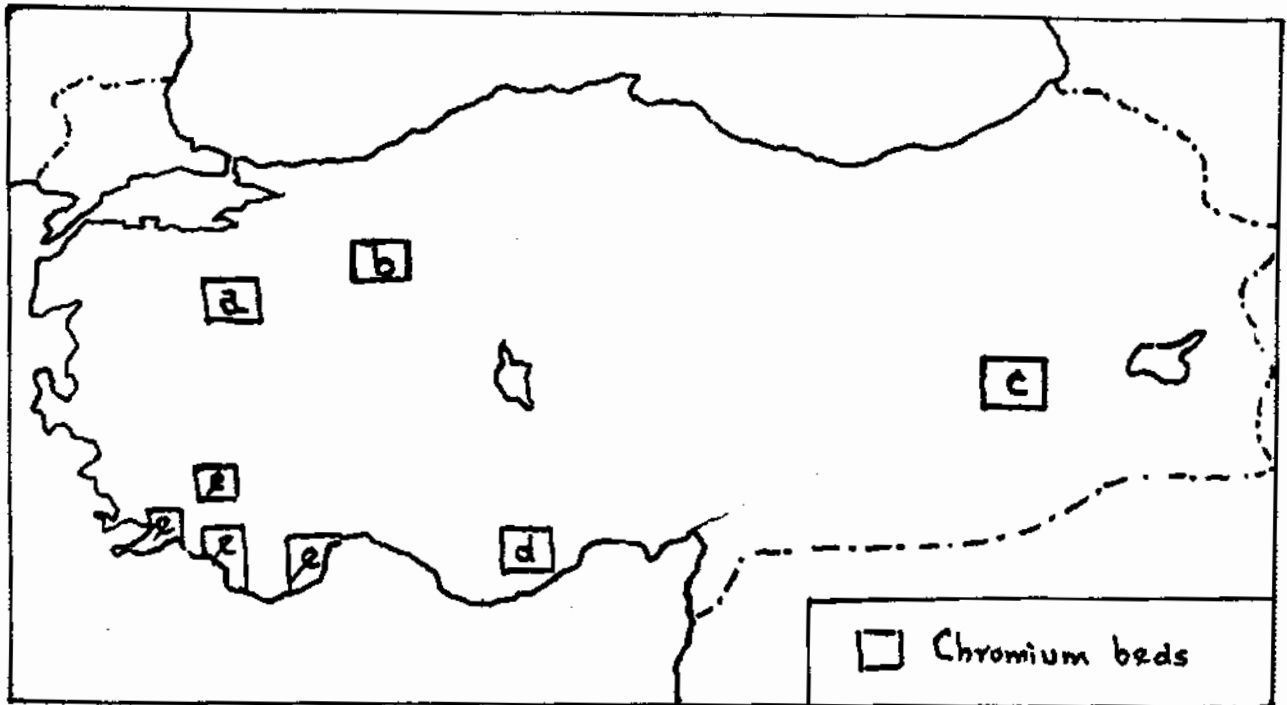
It must be added that amongst the less important beds come those that have been recently discovered in the vilayets of Ankara, Konya, Elaziz, Kars, Erzurum and Denizli.

(18) "Monthly Bulletin", January-February 1939, p. 31.

(19) See Map III, p. 15. On the map the small letters (a. b. c. d. and e) are represented by numbers (1, 2, 3, 4 and 5) respectively.

(20)
Map III

The Regions Containing the Main Chromium Beds



deposits:

3. Size of the mineral No data concerning this point are available. If allowed to deduce, with great reserve, from the production figures of the five different chromium regions, it might be said that the regions may be classified thus: (1st) the meridional region, (2nd) the region of Kutahya-Bursa, (3rd) the region of Eskishehir, (4th) the oriental region, (5th) the region of Mersin⁽²¹⁾.

(20) "M.T.A.", Year 1, No. 3, 1936, p. 33.

(21) For production figures of the different regions, see Chapter IV, B 3, p. 27.

4. General characteristics of chromium: Chromium of Turkey is of the best quality in the world. When mined it forms between 40-60% of the lump extracted (22).

The chromium mines are, in general, situated inland, except those of the meridional region which has the advantage of being only five or six kilometers away from the seashore. This facilitates exportation of chromium.

D. COPPER

1. Significance: Turkey is very rich in copper and it is one of the oldest minerals under exploitation. Yet, copper mining, today, does not occupy the place it should when compared with the mining of other minerals, such as coal and chromium. It is, however, believed that its systematic exploitation, recently started, will soon enable it to rank the second.

2. Geographic location: In Turkey, until 1937, (23) copper was discovered in about ninety different localities. But the most important ones are situated at Ergani, Murgul and Kurvars-han, Kureinuhas, Arhavi, Hendek, Bolu, Shileh (Şile), Gemerck, Sigmen, Geuktepeh (Göktepe), Kilis and (24) Tepehan .

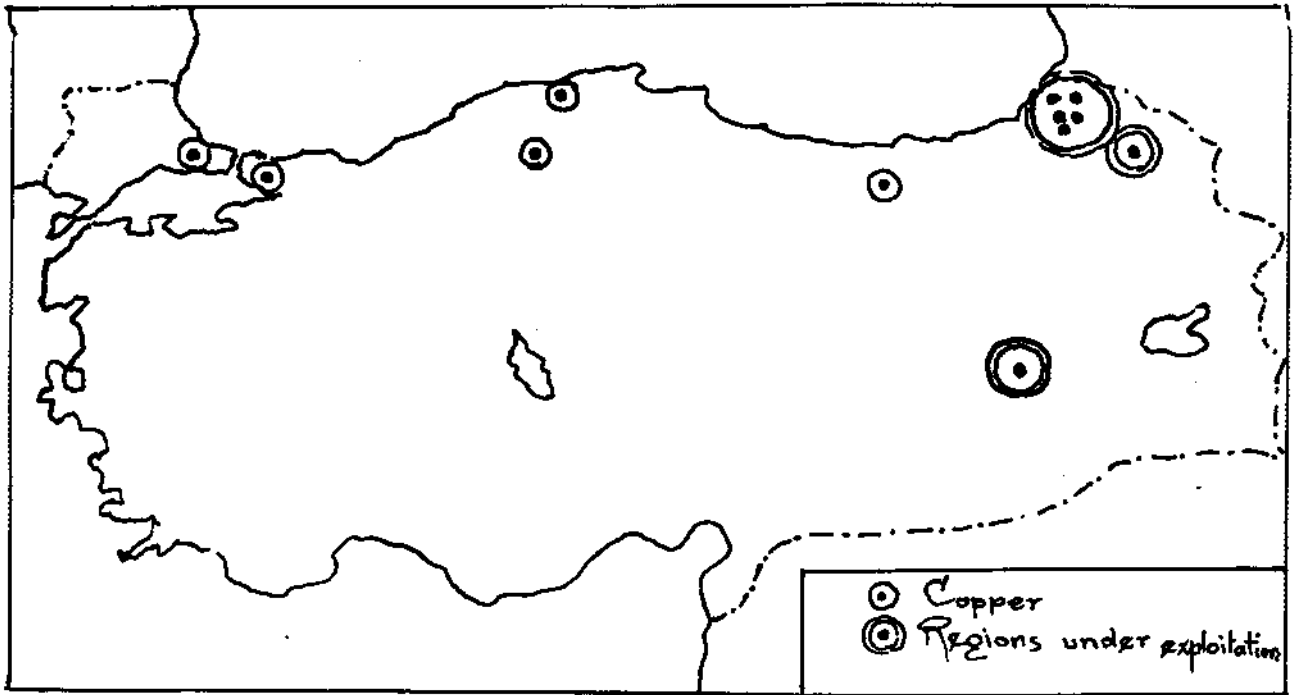
(22) For example, the mineral of Kutahya-Bursa region has a chromium content of 57%. "Monthly Bulletin", January-February 1939, p. 32.

(23) Türkofis, "Commercial Directory", 1937, p. 123.

(24) For some of these, see Map IV, p. 17.

(25)
Map IV

The Most Important Copper Mines of Turkey



Of the above-mentioned mines only the following two are under exploitation:

a. Ergani and

b. Murgul-Kuvars-han copper mines.

3. Size of the mines^{deposits:} The Ergani copper mines cover a very large area. Next come, in size, the Murgul-Kuvars-han mines. No accurate estimates are yet available as to their exact sizes.

4. General characteristics of copper: The Ergani copper that was first extracted 2000 B.C. has a copper content rarely found from 15.6% to

(25) İktisat Vekaleti, M.T.A. Enstitüsü, "Zonguldak Maden Tatbikat Mektebi", 1939, p. 5.

(26) Türkofis, "Commercial Directory", 1937, p. 123.

(27) Ibid., p. 123 and the "Turkish Number" of the "London Times", Tuesday, August 9, 1938, p. XXXV.

(28)
17.6% pure copper . The Ergani beds contain a
reserve of 2.5 million tons of copper (29) .

The Murgul-Kurars-han copper ranks next to that of Ergani in copper content.

E. THE OTHER LESS IMPORTANT MINERALS AND MINES.

1. Significance: In Turkey, in addition to the already mentioned minerals, there are numerous other minerals of lesser significance (30) - such as, borax, emery, manganese, cement, meerschaum, sulphur, arsenic, antimony, zinc, argentiferous lead, mercury, gold, silver, iron and petroleum.

2. Geographic locations of these minerals (31) :

Borax: Borax, first discovered in 1815, abounds in the district surrounding Bandirma. The most important borax mine is that of Sultan Chayir (Çayir) in the same region.

Emery: Emery was discovered in fifty-eight different places in Turkey (32) . Amongst these, the richest are the mines that are situated in the region of Ajdin.

Manganese: It was discovered in thirty-nine different regions of Turkey (33) . The most important deposits are situated at Kinike, Eregli, Balya, Hopa,

((28) Turkofis, "Commercial Directory", 1937, p. 123.
(29) "M.T.A.", Year 4, No. 4, October 29, 1939, p. 14.
(30) The value of total production of these minerals in 1932 was about L.T. 284,000, about 2% of the grand total, "Iktisat Bakimi", p. 400.
(31) See Map V, p. 19,
(32) "Commercial Directory", 1937, p. 123.
(33) Ibid., p. 122.

Akhisan, Biga, Chankkale (Çanakkale), Sapanja (Sapanca) and Fethiye. But out of these only the mines of Fethiye are being exploited.

Cement: The districts surrounding Istanbul are rich in cement, raw materials. (34) The five mills at work produce the best quality cement (35).

Meerschaum: Turkey is the only country possessing meerschaum (36). It is extracted from five principal mines near Eskişehir (Eskişehir).

Sulphur: Sulphur has been discovered in fifteen different places but the richest deposits are situated at Kechiborlu (Keçiborlu) (37).

Arsenic: In eighteen different points of the country arsenic has been discovered (38). The most important of the deposits, however, are situated at Eudemish (Ödemiş), Tire, Kastamonu, Aydın, and Balya (39).

Antimony: Fifteen deposits of antimony have been discovered in various parts of Turkey and the principal mines are situated in Sivas, Tokat, Smyrna (Izmir), Bakkesir, and Manisa (40).

Zinc: Zinc has been discovered in forty different places, the most important of which are

(34) The five mills mentioned above are those of Kartal, Bakirkeuy (Bakirköy), Zeytinburnu, Darlija (Darlica) and Ankara.

(35) "Commercial Directory", 1937, p. 124.

(36) Ibid, p. 124.

(37) Ibid., p. 124.

(38) Ibid., p. 123.

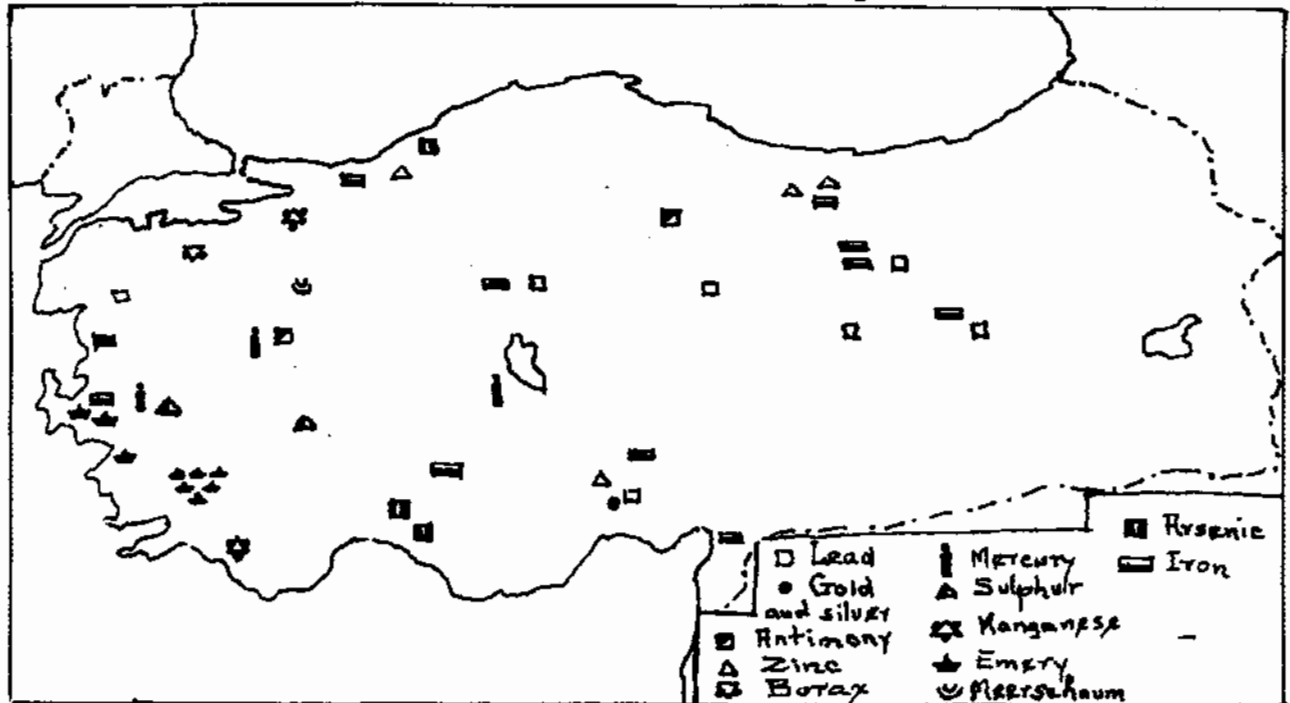
(39) Ibid., p. 123.

(40) "Commercial Directory", 1937, p. 123.

situated in at Biga, Balya, Smyrna, Manisa, Anamur
(41).
and Ordu

(42)
Map V

Locations of Some of the Less Important Minerals



Argentiferous lead: This metal is found in many regions, but the most important mines occur in Balya, Karaydin, Bolkardag, Anamur, Keskin, Karahisar, Avdjular (Avcular) and Keban (43)

Mercury: The most important mercury mine is situated at Kayaburum (44)

Gold and silver: These two minerals exist in quite large quantities in Bolkardag (45) - in the Tauruses.

(41) "Commercial Directory", 1937, p. 122.
 (42) İktisat Vekâleti, M.T.A. Enstitüsü, "Zonguldak Maden Tatbikat Mektebi", 1939, p. 5.
 (43) "Commercial Directory", 1937, p. 124.
 (44) See Map V, p. 20.
 (45) See Map V, p. 20.

Iron: Iron has been discovered in thirty-six
(46) different places . The most important of these are Divrik, Ayazmant, Farasa, Torbali and Chaglayhk (Çaglayhk) deposits. Out of these, only the iron mines of Divrik are under exploitation.

Petroleum: Petroleum exists in numerous parts of the country, particularly in thrace (Rumeli), and in eastern and southern Anatolia, but none is suitable
(47) for commercial exploitation .

3. Sizes of the mines: The sizes of all the less important mines have not yet been scientifically measured - except that of the meerschaum mines of
(48) Eskishehir which cover an area of 865 hectars .

4. General characteristics of these minerals and mines: In general, most of these minerals are large and rich in their pure metal contents. Arsenic mined is
(49) 40% pure . The antimony ore contains an average of
(50) 6% of pure metal . Pure zinc content in the mineral
(51) is from 35% to 50% . Argentiferous lead contains
(52) 97.5% lead . Meerschaum, which is used for making pipes, cigarette holders and insulators, is a soft
(53) metal whose 75% is magnesium and 25% clay silicate .

(46) "M.T.A.", Year 1, No. 4, September 1936, p. 8.

(47) Recently (1940), the news of the discovery of a large petroleum field around the Vilayet of Adana was declared in l'Orient, the French daily news-paper of Beirut.

(48) "Commercial Directory", 1937, p. 124.

(49) Ibid., p. 123.

(50) Ibid., p. 123.

(51) Ibid., p. 124.

(52) Ibid., p. 124.

(53) Ibid., p. 124.

IV. THE DEVELOPMENT OF MINERAL PRODUCTIONS IN
TURKEY

- A. A General Survey of Mineral Productions under the Ottomans.
- B. Mineral Productions under the Kemalist Regime.
 - 1. Production of coal
 - 2. Production of lignite
 - 3. Production of chromium
 - 4. Production of copper
 - 5. Production of less important minerals

IV

THE DEVELOPMENT OF MINERAL PRODUCTIONS
IN TURKEY

A. GENERAL SURVEY OF MINERAL PRODUCTIONS UNDER
THE OTTOMANS.

Any general survey of mineral production under the Ottomans, characterized by unavailability and, in most cases, inaccuracy of the data ⁽¹⁾, is a sharp contrast when compared with another survey of mineral productions since 1923. Furthermore, the production figures of this first period indicate an irregularity in the production of nearly every mineral.

Amongst the minerals to be surveyed, coal seems to have been the most fortunate. Although not the first mineral to be discovered in Turkey it has received care at the hands of the people in charge of exploitation ⁽²⁾. Discovered in 1845 and exploited comparatively regularly after 1865, the production figures show a considerable, though unsteady, rise over a period of ⁽³⁾ fifty-seven years.

(1) The Ottoman Government was an extremely inefficient body of administrators. They never kept records regularly, nor whatever they did keep can be considered as reliable.

(2) After 1865 the exploitation of the coal mines was undertaken by the Ottoman Admiralty. "Turkiyenin Iktisadi Bakimdan Bir Tetkiki", 193301934, p. 385.

(3) See Table I, p. 28

(4)
Table I

The Production of Coal in the Zonguldak-Eregli Basin
(1865-1922) in metric tons

Years	Tons	Years	Tons	Years	Tons
1865	61,145	1895	150,944	1917	158,203
1870	64,347	1900	420,460	1918	186,056
1875	142,321	1905	622,165	1919	380,901
1880	55,801	1910	764,397	1920	569,370
1885	79,221	1915	420,326	1921	342,041
1890	148,540	1916	208,202	1922	410,944

In its earliest stages of comparatively regular exploitation the annual total production, in 1865, was only 61,145 tons. This figure rose to 410,944 tons in 1922 - between these two years the record figure scored being 764,397 tons, in 1910.

The fluctuations in production figures correspond directly to the political situation. For instance, the fall in the annual production of 1880, as compared with that of 1875, is due to the Russo-Turkish War of 1877. Moreover, the fall of 1915, compared with 1910, is due to the Italo-Turkish War of 1911 and the Balkan Wars of 1912. The successive falls in 1916, 1917, and 1918 are due to the World War I (1914-1918).

The production of lignite prior to 1923 was extremely irregular. Constantly varying between 10,000

(4) Department of Mining, "Kömür Mecmuası", (Coal Magazine), April 23, 1937, p. 16.

and 40,000 tons from 1904 until 1923 once it reached a record figure of 320,000 tons in 1917, most probably due to the exigencies of the World War I. ⁽⁵⁾

Chromium production in Turkey was as irregular as lignite. First discovered in Harmanjik (Harmancik) in the region of Bursa, and began to be exploited in 1848, the total annual production of chromium, in spite of its irregularities, was considerable until 1903 when Turkey was producing 50% of the world total chromium production ⁽⁶⁾. But after 1903, as new chromium mines were discovered in New Caledonia, India and Rhodesia, the Turkish chromium production ⁽⁷⁾ decreased until it nearly stopped in 1914.

Copper, discovered long ago in the regions of Ergani, Murgul and Kuvarshan, was produced increasingly until the World War I (1914). The fifty-seven-year ⁽⁸⁾ total production of Ergani copper amounted to 294,932 tons and the annual production figures of Murgul and Kuvarshan were 3,430 ⁽⁹⁾ and 2,500 ⁽¹⁰⁾ tons respectively in 1913.

The annual productions of all the other minerals of Turkey, such as borax, emery, manganese, cement, meerschaut, iron, sulphur, arsenic, antimony, zinc, argentiferous lead and mercury, have been most irregular. No reliable

(5) "İktisadi Bakun", 1933-1934, p. 390.

(6) "Monthly Bulletin", January-February 1939, p. 31.

(7) Ibid., p. 31. No figures were available in this or in any other source to supplement these statements.

(8) "M.T.A." Year 1, No. 5, October 29, 1936, p. 34.

(9) "M.T.A." Year 3, No. 2, April 1938, p. 16.

(10) "M.T.A." Year 1, No. 5, October 29, 1936, p. 36.

figures for the period were available, and whatever was available, though not very wise to depend upon, indicate the insignificance of the mines at that time.

B. MINERAL PRODUCTIONS UNDER THE KEMALIST REGIME.

By the establishment of the Kemalist Regime mining underwent a revolution. It was nationalized, modernized and systematically exploited. Under this entirely new management relatively accurate records were kept and incredible results obtained.

1. Production of Coal: Coal mining was the most advanced of all in 1923. Its annual production figures, although indicated no steady development, were recorded. But the real progress in coal mining in all its history did not take place until after the establishment of the Republic. Every year meant a further increase in the quantity of coal ⁽¹¹⁾, even during the early thirties in spite of the fact that the world coal production underwent a decrease due to the general crisis of 1929-1932 ⁽¹²⁾. ⁽¹³⁾

Table II
The Production of Coal in the Zonguldak-Eregli Basin
(1923-1938)

Years	Tons	Years	Tons	Years	Tons
1923	597,499	1929	1,421,008	1935	2,340,491
1924	994,020	1930	1,595,359	1936	2,298,649
1925	957,625	1931	1,574,091	1937	2,306,869
1926	1,216,008	1932	1,593,579	1938	2,588,957
1927	1,323,833	1933	1,852,107	1939	2,696,397
1928	1,250,639	1934	2,288,269	1940	3,019,458

(11) See Table II, p. 25.

(12) The world production of coal that was 1,332,600,000

The annual productions of coal under the new Règime rose from 597,499 tons in 1923 to 3,019,458 tons in 1940 - an increase of about 505%.

2. Production of Lignite: In spite of the fact Turkey possessed large beds of lignite their exploitation was neglected prior to 1923. But since then the annual production figures have been on a steady rise (14) (15)

Table III

The Production of Lignite in Turkey
(1923-1940)

'Year'	Tons	'Year'	Tons	'Year'	Tons	'Year'	Tons
'1923'	253	'1928'	9,251	'1933'	29,561	'1938'	129,300
'1924'	---	'1929'	11,558	'1934'	52,777	'1939'	151,257
'1925'	4,610	'1930'	9,389	'1935'	73,355	'1940'	219,575
'1926'	6,812	'1931'	7,775	'1936'	95,234		
'1927'	10,555	'1932'	13,560	'1937'	115,069		

The total production of 1923 that was only 253 tons was raised to 13,560 tons in 1932, 115,069 tons in 1937 and finally to 219,575 tons in 1940 - an increase of 86788%, between 1923 and 1940, almost incredible. This steady increase in production, unaffected by factors influencing the production of world lignite, may have been attributed to the government law of combustibles that has ordered the use of lignite as a substitute for wood (16)

tons in 1929, fell to 1,006,300,000 tons in 1933.

"M.T.A.", Year 1, No. 5, October 29, 1936.

(13) "M.T.A." Year 6, No. 4/25, October 29, 1941, p. 424.

(14) See Table III, p. 26.

(15) "Monthly Bulletin", August 1938, p. 58; and "M.T.A.", Year 6, No. 4/25, October 29, 1941, p. 431.

(16) "M.T.A. Year 1, No. 5, October 29, 1936, p. 29.

3. Production of Chromium: Before the accession to power of the Kemalists, the production of chromium was very irregular, as was the case with practically all the other minerals. In 1923 the new Government rationalized production, as a result of which, the total production of chromium rose from 3,400 tons in 1923, to 28,195 in 1930 and to 208,405 tons in 1938⁽¹⁷⁾ - successive increases of 829% and 739%.

(18)

Table IV

The Production of Chromium in Turkey
(1928-1940)

'Year'	Tons	'Year'	Tons	'Year'	Tons	'Year'	Tons
'1923'	3,400	'1928'	11,849	'1933'	75,379	'1938'	208,405
'1924'	7,506	'1929'	16,178	'1934'	119,844	'1939'	191,644
'1925'	6,670	'1930'	28,195	'1935'	150,472	'1940'	182,327
'1926'	18,318	'1931'	25,388	'1936'	160,399		
'1927'		'1932'	55,216	'1937'	192,508		

The total annual production of chromium is a sum total of chromium produced in the five different regions of Turkey - the region of Kutahya contributing between 35,000 and 40,000 tons⁽¹⁹⁾; the region of Eskishehir (Eskişehir) between 6,000 - 7,000 tons⁽²⁰⁾; the Meridional region of Fethiye about 80,000 tons⁽²¹⁾; and the two other regions of Mersin and the Orient producing the rest.

(17) See Table IV, p. 27.

(18) "Monthly Bulletin", August 1938, p. 58; and "M.T.A.", Year 6, No. 4/25, October 29, 1941, p. 435.

(19) "Monthly Bulletin", January-February 1939, p. 32.

(20) Ibid., p. 31.

(21) Ibid., p. 31.

The slight decreases in the production of chromium during the years 1939 and 1940 were most probably due to the difficulty of exportation, caused by the present war.

4. Production of copper: Copper production, right after 1923, does not indicate steady increases. The annual production figures from 1923 until 1929 were insignificant and it was only after 1937 that the government, having applied the "Three-Year-Mining-Plan" that meant the modernization of copper mines of Ergani, and the reorganization of Murgul and Kuvarshan, could expect sufficient and steadily rising quantities of copper (22). The annual production of 1937 that was only 400 tons rose to 2,488 tons, 6,736 tons and 8,531 tons in the consecutive years of 1938, 1939 and 1940.

(23)
Table V

The Production of Copper in Turkey
(1923-1940)

'Year'	Tons	'Year'	Tons	'Year'	Tons	'Year'	Tons
'1923'	189	'1928'	13	'1933'	---	'1938'	2,488*
'1924'	830	'1929'	65	'1934'	---	'1939'	6,736**
'1925'	451	'1930'	--	'1935'	---	'1940'	8,531**
'1926'	845	'1931'	--	'1936'	---		
'1927'	---	'1932'	--	'1937'	400		

(22) See Table V, p. 28.

(23) "Monthly Bulletin", August 1938, p. 58 and "T.C. İktisat Vekâleti Maden Umum Müdürlüğü, '1936 ve 1937 Maden İstatistigi'", (The 1936 and 1937 Mineral Statistics of the Department of Mining of the Ministry of Economics of the Turkish Republic), p. 82.

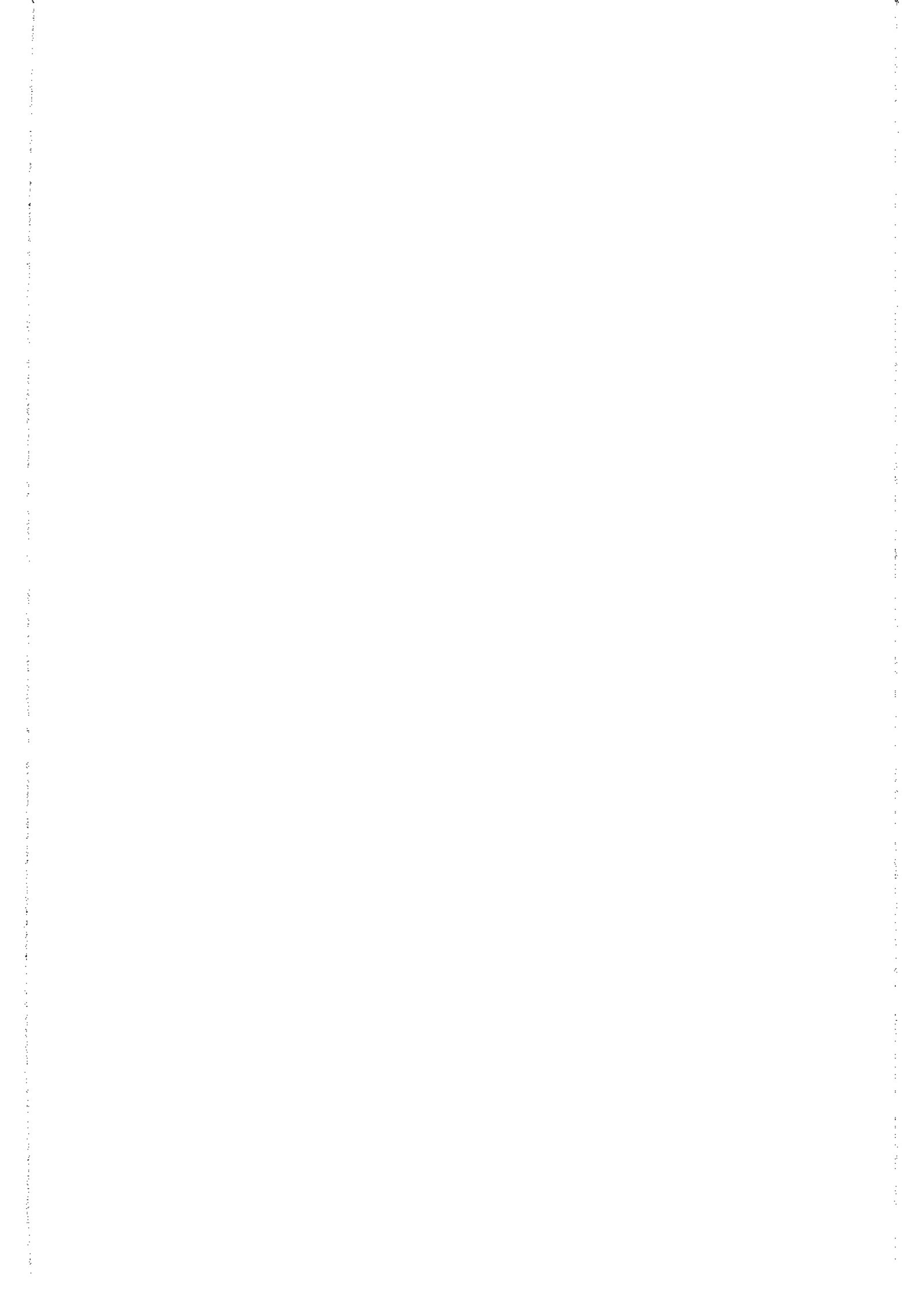
* "La Turquie Kemalist", December 1938, p. 4 and "M.T.A.", Year 4, No. 2, April 1939, p. 3.

** "M.T.A.", Year 6, No. 4/25, October 29, 1941, p. 436.

5. Productions of Less Important Minerals: All the remaining minerals that are of lesser importance, such as borax, Emery, manganese, cement, meerschaum, iron, sulphur, arsenic, antimony, zinc, argentiferous lead and mercury, although most of them are the oldest amongst the minerals ever extracted in Turkey, have never had any regularity in their productions ⁽²⁴⁾. Their productions, until very recently, depended entirely on the external market conditions. When the world prices were low the productions would cease. Only in 1935 did the present government take measures to improve some of them.

It will be noted in the following table of productions that the mines that exhibit a gradual and regular increases are antimony, zinc, cement, emery, and argentiferous lead, whereas the rest are not so regular.

(24) See Table VI, p. 30



(25)
VI

Important Minerals (in tons)

Iron	Sulphur	Arse- nic	Anti- mony	Zinc	Arg. Lead	Mercury (Bottles)
-----	-----	--	-----	-----	-----	6
-----	-----	--	-----	-----	-----	226
-----	-----	--	74	-----	-----	100
-----	-----	--	-----	-----	-----	161
-----	-----	--	26	-----	-----	---
-----	12	10	97	5,829	-----	126
-----	-----	14	7	11,501	-----	239
-----	-----	56	32	9,645	-----	545
-----	74	54	43	1,477	-----	239
-----	25	4	-----	3,250	-----	---
-----	150	2	668	6,945	-----	23
-----	300	17	66	14,393	-----	42
-----	2,178	28	223	14,645	-----	25
-----	3,189	16	1,070	16,170	3,855	815
-----	2,265	27	1,225	17,143	6,743	483
76,507(*)	-----	--	-----	-----	-----	---
(*)	(*)	---	---	---	---	(*)
232,076	2,601	---	-----	-----	-----	359
(*)	(*)	---	(*)	---	---	(*)
130,337	2,396	---	309	-----	-----	193

Bakimdan Umumi Bir Tetkiki", 1933-34, pp. 354 and 355; and Istatistigi", p. 82.

V. MINERAL VARIETY, RESERVES AND OUTPUT OF TURKEY
AS COMPARED WITH THOSE OF THE WORLD.

- A. Variety of Turkish Mineral Resources
- B. Turkish and World Mineral Reserves
- C. Turkish and World Mineral Output
- D. Turkey's Rôle in World Mineral Trade

V

MINERAL VARIETY, RESERVES AND OUTPUT OF TURKEY
AS COMPARED WITH THOSE OF THE WORLD

A. VARIETY OF TURKISH MINERAL RESOURCES.

Turkey has a great variety in minerals of first class importance to the development of modern industry. She has large reserves of coal, lignite, chromium, copper, lead, antimony, zinc, manganese, iron, sulphur, cement, borax, arsenic, mercury, emery, molybdenum, gold and silver. She lacks only two of the first class minerals, namely, oil and tin, and five other minerals of secondary importance, namely, aluminum, nickel, graphite, tungsten and asbestos. With regards to the possession of the fertilizer group of minerals Turkey has not yet been fortunate so as to discover beds of nitrates, potash and phosphates.

With this great variety of minerals, Turkey can be favorably compared with all the countries of the world, except with the United States of America, the British Empire, and Russia whose advantage lies in the extent of their territories. None of them has such a variety of minerals in any portion of their territories of comparatively the same size as Turkey.

B. TURKISH AND WORLD MINERAL RESERVES.

Until the present time there has not yet been made an accurate estimate of all the mineral reserves of the world. Figures of relative accuracy can be obtained about the United States, United Kingdom, France, Germany,

Italy and to a certain extent about the British Empire. But whatever figures are available as estimates about the other countries are not very satisfactory either because the countries in question are not yet scientifically surveyed and searched at all or new mines are being so frequently discovered that no figures present the up-to-date facts. As an example of the first case, the whole continent of Asia, with the exception of Russia and Turkey, can be given. The geologists state the possible existence of considerably large reserves of more coal and iron in China and of more manganese in India.

Turkey belongs to that part of the world which is still undergoing scientific survey. So, no completely up-to-date estimates about her mineral reserves are available. But the surveys and researches that are made at present by the Institute of Mining Survey and Research of Turkey indicate the existence of considerably large reserves of chromium, copper, emery and manganese. Their potentialities are believed to be great enough to enable Turkey to become an industrial power, provided capital and technical knowledge also exist side by side (1) side .

(1) From an interview with the assistant director of the Department of Mining of Turkey at Ankara, March 23, 1943.

C. TURKISH AND WORLD MINERAL OUTPUT.

From the point of view of mineral output Turkey is not one of the leading mineral producing countries of the world, in spite of the fact she has a considerable variety of large reserves, except in the production of chromium. Lack of both technical knowledge and capital has been the main reason for limitation in output.

With regards to the world production of chromium, Turkey is the leading chromium producer. In close competition with the U.S.S.R., Southern Rhodesia and Union of South Africa she has had a gradual rise in her production until she set up her record figure in 1938⁽²⁾. The total output that was about 28,000 tons in 1932 has risen to 107,000 tons within the course of a few years.

Table I⁽³⁾

The Five Leading Chromium Producers of the World
(in metric tons, 000's omitted)

Countries	1932	1933	1934	1935	1936	1937	1938	1939
Turkey	28.0	38.0	60.0	75.0	80.0	96.0	107.0	97.0
U.S.S.R.	30.0	45.0	50.0	75.0	90.0	90.0	---	---
Southern Rhodesia	7.7	17.2	35.4	51.9	89.8	135.0	91.1	68.0
Un. of South Africa	8.4	14.8	27.0	39.8	77.0	75.5	79.5	72.6
Yugoslavia	19.0	14.0	23.0	25.1	18.7	28.4	28.0	21.0

(2) See Table I, p. 33.

(3) "Statistical Year Book" of the League of Nations, Geneva 1940, p. 154. The annual chromium productions of this table do not correspond to those of Table IV, p. 27. This difference is due to the fact that this table refers to the estimated chromic oxide (Cr_2O_3) content of chrome ores mined whereas the other table refers to the ores mined.

With these gradually rising outputs Turkey has been contributing considerably to world chromium production. Although there are twenty-one other participating chromium producers Turkey's share has been about one fifth of world production ⁽⁴⁾ .

(5)
Table II

Turkey's Contribution to World Chromium Production
(in metric tons, 000's omitted)

Years	World	Turkey	%
1934	273	60	22
1935	359	75	21
1936	466	80	17
1937	583	96	16.4
1938	520	107	20

A comparison of Turkish and world productions in minerals other than chromium does not reveal any important contributions to world mineral outputs on the part of Turkey. In 1938 Turkey produced 1.59% of the world production of antimony, 0.51% of that of zinc, 0.30% of that of lead, 0.34% of that of cement, 0.20% of that of coal, 0.23% of that of molybdenum, 0.13% of that of sulphur, 0.10% of that of copper and 0.06% of that of lignite ⁽⁶⁾ .

(4) See Table II, p. 34.

(5) "Statistical Year Book" of the League of Nations, Geneva, 1940, p. 154.

(6) See Table XIV of the Appendices, p. 114

D. TURKEY'S RÔLE IN WORLD MINERAL TRADE.

In world mineral trade Turkey does not play a leading rôle, except in chromium.

Turkey does not use chromium as a raw material in her industries. Thus the quantity of Turkish chromium entering the world markets is equal to total Turkish chromium production, and as all of this production is exported, Turkey is the greatest supplier of chromium in the world. Her share of world total supply is greater than her share in world production, because, while the other chromium producing countries consume certain portions of their chromium outputs in their industries, Turkey has no use for this mineral and exports it all, at the present time ⁽⁷⁾.

With regards to Turkey's rôle in world trade in minerals other than chromium, for the time being none of the Turkish minerals is exported. Coal, the second leading item amongst the minerals, was exported until ⁽⁸⁾ 1941 .

(7) Up-to-date and accurate figures are not available on the world trade in chromium. Turkey, also, does not, at present publish any figures on the distribution of her chromium exports between England and Germany.

(8) See Chapter VI, p.37.

VI. HOME CONSUMPTION AND EXPORTATION OF THE
TURKISH MINERALS, AND THEIR LOCAL PRICES
AS COMPARED WITH THOSE OF THE WORLD.

A. Home Consumption and Exportation

1. Coal
2. Lignite
3. Chromium
4. Copper
5. Other Less Important Minerals.

B. Local and World Prices.

1. Coal
2. Lignite
3. Chromium
4. Copper
5. Other Less Important Minerals

VI

HOME CONSUMPTION AND EXPORTATION
OF THE TURKISH MINERALS,
AND THEIR LOCAL PRICES AS COMPARED
WITH THOSE OF THE WORLD.

A. HOME CONSUMPTION AND EXPORTATION.

1. Coal: Coal is one of the minerals the demand for which is the greatest at home. All the sea and land transport systems, practically all the industrial establishments and countless homes are the main and regular consumers of coal.

During the past twelve years the annual home consumption of coal has indicated a slow but steady rise ⁽¹⁾.

(2)
Table I

The Home Consumption of Coal
(1929-1940)

Years	Tons	Years	Tons	Years	Tons
1929	728,086	1933	843,862	1937	977,868
1930	862,492	1934	960,162	1938	1,249,246
1931	816,618	1935	963,159	1939	2,494,282
1932	842,702	1936	967,781	1940	2,986,897

(1) See Table I, p. 36.

(2) "M.T.A.", Year 4, No. 4, October 29, 1939, p. 6.
The figures for the years 1939 and 1940 were got by deducting annual exports from total annual production.

The total consumption of coal that was 728,086 tons in 1929 became 2,986,897 tons in 1940, about a four-fold increase.

(1914-1918)
 The pre-war, exportation of coal as compared with (3) that of the post-war period, was insignificant. It was after the year 1923, that exports increased and from a total of 85,540 tons in 1923 rose to 749,960 tons in (4) 1935. But in this record year, 1935, the "First-Five-Year-Industrialization-Plan" was started as a result of which total exports declined in the consecutive years of 1936, 1937 and 1938, as a considerable portion of the total production was demanded at home. The total exports fell to 570,868; 327,123; and 355,849 tons respectively. In addition to an increase in the home demand as a natural consequence of industrialization, the World War II forced the government to curtail exports to have coal reserves in case of emergency.

(5)
 Table II
 The Exportation of Coal from Turkey
 (1923-1940)

'Years'	Tons	'Years'	Tons	'Years'	Tons
'1923'	85,540	'1929'	157,979	'1935'	749,960
'1924'	118,865	'1930'	275,360	'1936'	570,868
'1925'	120,975	'1931'	299,259	'1937'	327,123
'1926'	148,593	'1932'	335,553	'1938'	355,849
'1927'	65,023	'1933'	479,360	'1939'	202,115
'1928'	101,261	'1934'	692,266	'1940'	32,561

(3) Exact quantities of pre-war exports of coal were not available, but there were several statements about the insignificance of pre-war exports as compared with those of the post-war period.

(4) See Table II, p. 37.

(5) "M.T.A.", Year 6, No. 4/25, October 29, 1941, p. 424.

The principal countries that imported Turkish coal until 1938 were France, Italy, Greece, Brazil, Syria and Roumania. After 1938 the war changed the distribution of coal exports. Although no accurate records are available it is certain that France, Italy and Brazil are no more the principal importers of Turkish coal ⁽⁶⁾.

2. Lignite: Lignite is one of the minerals that are consumed entirely at home. The continuous rise in the total annual productions of lignite thus indicate ⁽⁷⁾ the increasing home consumption.

As all the lignite produced is consumed at home no lignite remains for exportation. It will, most probably, be possible to export when annual production is increased beyond its present limits.

3. Chromium: Chromium is a mineral for which Turkey has no home use at present. So, total annual exports equal total annual production ⁽⁸⁾.

The pre-1914 maximum exportation of chromium amounted to 41,000 tons in 1901 and later to 29,000 tons in 1912 ⁽⁹⁾. The total post-war (of World War I) annual exports that were 3,400 tons in 1923 rose to 208,405 tons in 1938. With regards to the distribution of exports, Germany, U.S.A., Sweden and France were the leading importers of the Turkish chromium before 1939 ⁽¹⁰⁾. At present, 1943, the two competing rival importers of Turkish chromium are Great Britain and Germany ⁽¹¹⁾.

(6) From an interview with Mr. Rahmi Oren, the assistant of the director of the Department of Mining, in Ankara, March 23, 1943.

(7) See Chapter IV, "The Development of Mineral Productions in Turkey", Table III, p. 26.

(8) Refer to Chapter IV, "The Development of Mineral

4. Copper: As Turkey has not yet fully developed industries using copper, this mineral is not consumed at home. Thus practically all the annual export figures equal total production figures ⁽¹²⁾.

The exportation of copper prior to the World War I was considerable but the post-war export figures were negligible until 1938, because the real exportation of copper was not begun until 1937 when the copper mines of Ergani, Murgul and Kuvarshan were reorganized. The annual exports of copper were 2,488, 6736 and 8,531 tons in 1938, 1939 and 1940 respectively - all of them being made to the United States of America.

5. Other Less Important Minerals: Of all these less important minerals, such as borax, emery, manganese, cement, meerschaum, iron, sulphur, arsenic, antimony, zinc, argentiferous lead, and mercury, only cement, iron, sulphur and to a certain extent meerschaum were entirely exported until 1940. After this period they were either utilized for some purposes or stored.

The annual exports of these minerals, until 1941, sometimes varied considerably. For example, meerschaum exports decreased because of changing tastes and the fall in demand for luxury goods. Instead of 7,700

Productions in Turkey", Table IV, p. 27.

(9) "Monthly Bulletin", January-February 1939, p. 34.

(10) "M.T.A.", Year 4, No. 3, July 1939, ~~XXXXX~~ p. 79.

(11) From an interview with Mr. Rahmi Ören, the assistant director of the Department of Mining, in Ankara, March 23, 1943.

(12) See Chapter IV, "The Development of Mineral Productions in Turkey", Table V, p.28.

cases that were exported in 1903, only 100 were exported
 in 1932 ⁽¹³⁾ . Exports of manganese also fell from 11,398
 tons in 1927 to 530 tons in 1937 ⁽¹⁴⁾ . Exports of emery,
 also were greatly affected by the world crisis and by the
 competition of the Greek emery producing firms. Exports
 of 7,500 tons, in 1925, fell to 3,267 tons in 1930 ⁽¹⁵⁾ .
 But, after 1930, excluding manganese and borax, all these
 minerals were recovering ⁽¹⁶⁾ . The principal country
 importing most of these minerals was Germany ⁽¹⁷⁾ .

B. LOCAL AND WORLD PRICES

1. Coal: Home prices of coal, which are kept
 constant by the government, are relatively higher than
 the prices outside Turkey ⁽¹⁸⁾ . Because of the fact that
 coal prices are high at home, the home industry ^{ies} dependent
 on coal suffers ⁽¹⁹⁾ .
⁽²⁰⁾

Table III
 The Average Monthly Prices of Turkish Coal at Home and Abroad
 - in Turkish piasters - (1939)

Kinds	January		February		March	
	Home	Foreign	Home	Foreign	Home	Foreign
Krible	880	663	880	676	880	658
18 - 50	818	616	818	629	818	612
10 - 18	818	616	818	629	818	612
0 - 10	690	520	690	530	690	576
Kandilli	620	467	620	476	620	464

(13) "İktisadi Bakım", 1933-34, p. 392.

(14) "Monthly Bulletin", August 1938, p. 58.

(15) Ibid., p. 58.

(16) Ibid., p. 58.

(17) Ibid., p. 58.

(18) This is due to relatively high cost of production and transportation as compared with those of the foreign competing firms, particularly the English firms.

(19) "İktisadi Bakım", 1933-34, p. 388.

(20) "M.T.A.", Year 4, No. 3, July 1939, p. 5.

Unlike the home prices, the world prices of coal are lower and vary every year. An analysis of these prices, over several years, indicates a considerable steady decline⁽²¹⁾. The average yearly price that was 869 Turkish piasters in 1930 fell to 386 Turkish piasters in 1936. This considerable fall must have been due to the world crisis of 1929 and its aftermath effects during the following years⁽²²⁾.

(23)
Table IV

The Average Yearly World Prices of Coal
- in Turkish piasters -

Year	Prices	Year	Prices
1929	778	1933	399
1930	869	1934	342
1931	695	1935	369
1932	467	1936	386

2. Lignite: The local prices of lignite are relatively lower than the prices prevailing in the world markets outside Turkey. This is most probably due to low costs of production because of the fact that most of the lignite beds are near the surface of the ground as well as within easy reach of important railway junctions⁽²⁴⁾.

(21) See Table IV, p. 41.

(22) See Table IV, p. 41.

(23) Department of Mining, op. cit., p. 17.

(24) "M.T.A.", Year 4, No. 3, July 1939, p. 16.

3. Chromium: Local and world prices of chromium are the same, the latter varying only with the transportation charges.

From 1926 up to 1937 the world chromium prices were on a continual decline, The average prices of chromium at the Metal Exchange of London fell from 120/- in 1925 to 76/3 in 1936, to rise again to 91/- in 1938⁽²⁵⁾. During this period of fall in prices, the Turkish Government was taking all the necessary measures to decrease costs and increase total production so that the Turkish chromium could compete in the world market.

4. Copper: Home prices of copper are nearly the same as world prices. The world prices of copper have indicated tendencies in the extremes. In 1916, the average price of copper was considerably high⁽²⁶⁾. From 1916 until 1927 it declined gradually⁽²⁷⁾. During the years 1927-29 there was a gradual rise⁽²⁸⁾. But, from 1929 and 1930, the beginning of general world crisis, until 1935 the lowest average prices were recorded. It fell, the price of 1930, from L.T. 600.40 per ton to L.T. 172.17 tons in 1935⁽²⁹⁾. From 1935 till

(25) "M.T.A.", Year 4, No. 3, July 1939, p. 36.

(26) "M.T.A.", Year 1, No. 5, October 29, 1936, p. 16.

(27) Ibid., p. 6.

(28) Ibid., p. 6.

(29) "M.T.A.", Year 3, No. 4, October 29, 1938, p. 9.

1938, there was a tendency to rise, the prices having stood at L.T. 197.78, 240.20 and 240.62 in 1936, 1937, and 1938 respectively ⁽³⁰⁾.

5. Other Less Important Minerals: As most of these minerals were entirely exported, their prices were those of the world markets. World prices of these minerals, in general, fell off particularly during the world crisis of 1929. Argentiferous lead production had ceased just because the world prices of lead were too low to render Turkish lead production profitable ⁽³¹⁾. The production of mercury suffered the same fate.

Just before the World War II, the prices of most of these minerals were tending to rise ⁽³²⁾.

(30) "M.T.A.", Year 3, No. 4, October 29, 1938, p. 9.
(31) "Commercial Directory", 1937, p. 122.
(32) Ibid., p. 24.

VII. GOVERNMENT MINING POLICY IN TURKEY

- A. Government Mining Policy under the Ottomans.
- B. Government Mining Policy under the Kemalist Régime.
 - 1. Government financial policy.
 - 2. Government industrialization policy.
 - 3. Government mining policy.
 - a. Nationalization of the mines.
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 - 4. Government mining policy and the search for, ownership, organization and exploitation, and the regulation of, the mines.
 - a. The search for mines.
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- C. The Present Possible Trend in Government Mining Policy.

VII

GOVERNMENT MINING POLICY
IN TURKEY

A. GOVERNMENT MINING POLICY UNDER THE OTTOMANS.

The government mining policy under the Ottomans signifies the attitude rather than the policy of the Ottoman government, because it neither owned the mines nor ever prepared scientific schemes of work, or plans, for them. All that can be said under this title, government policy before 1923, in reality, will be nothing but a statement on the attitude of the government in question. Such an attitude, excluding the period of development of mining in the early years of the Ottoman Empire (1500-1750), was often discouraging and if the mining survived or flourished at all, it was entirely due to the capacity and intelligence of the individuals exploiting the mines rather than to the governments' capacity and intelligence to manage things. Even during the flourishing stages of mining in the early period of the Ottoman Empire the encouragements of the government of the day were petty measures unscientifically designed to promote mining. These measures were limited to the exportation and pricing of minerals⁽¹⁾.

Realizing the insignificance of the government mining policy before 1923 we pass on to the mining policy of the present Turkish Government.

(1) Refer back to Chapter II, "A Brief Historical Background to Mining in Turkey", p. 7-8.

B. GOVERNMENT MINING POLICY UNDER THE KEMALIST REGIME.

By the advent of the Kemalists in Turkey, the form of government and the rôle it had to play in the reconstruction of the country had to be defined. The new Régime was declared republican and as its programme it had a detailed list of policies that could serve the main purpose - the economic revival of the country. Amongst the numerous economic policies to be adopted were those that concerned, principally, the questions of national finance, industry and mining - agriculture and commerce ranking second in importance.

Government mining policy is concerned with financial and industrial policies. The connection between mining and finance is direct, as mining is financed by the government budget whereas the connection between mining and industry is not so close. This latter connection arose as mining was included in, or was a part of, the general plans of industrialization. Later, however, this connection disappeared when a separate and supplementary mining plan was prepared.

In view of the direct and indirect connections between mining on one side and finance and industry on the other, these three policies will be analysed.

1. Government Financial Policy: The essential point in the financial policy of the Government is not to finance the whole economic revival and reconstruction of the country by one annual budget. It is to distribute the total expenditure of the plan over the number of years. The reconstruction is to continue and let each year be

financed by the income of that year. So, working within the limits of the budget, the Government has created, by decrees, several credit institutions, banks, that cooperate with it. With such a collaboration the programme of economic revival is achieved⁽²⁾. In certain cases, particularly where the enterprises to be established demand more credit than the budget and the national banks can afford, a resort to international borrowing is made⁽³⁾.

Mining is financed, like any other government enterprise, by the national budget and when foreign loans are received mining shares a portion of these as industry or agriculture do.

2. Government Industrialization Policy: The main aspect of the general economic policy of the Government is the industrialization of Turkey. The two purposes of industrialization, as stated by the leaders of Turkey, are, in the first instance, to reconcile the interests and the necessities of national economy with the interests and necessities of national defence, secondly, to raise the purchasing power of the people. The first purpose helps Turkey to become more self-sufficient in case of an eventual war and the second through the sale of more expensive industrial goods (relative to agricultural products) the Turkish people may purchase more of foreign goods.

(2) A typical example of collaboration is the case of irrigation of the plain of Adana. The ministry of Public Works, in order to carry out the project, borrowed L.T. 30,000,000 from the Agricultural Bank and charged it with the responsibility of irrigation. "Les Principes Fondamentaux de la Politique Economique et Financiere de la Turquie" - a speech delivered by

Mining policy has been considered, until recently, a part of the general industrialization plan, mainly because mining itself was a sort of industry, secondly, industrialization (in the proper sense) could not take place without mineral products, that is to say, the prevailing interdependence, thirdly mining, then, was not so important so as to be worked out and planned separately.

In order to have a clearer understanding of mining policy and its connection with the general industrialization plan a brief description of the latter will be made.

The Turkish Government, to industrialize the country, prepared three economic plans, two of which were successfully completed, the third being left incomplete due to the unusual circumstances created by the World War II⁽⁴⁾.

the President of the Grand National Assembly of Turkey, Celal Bayar, in June 29, 1938, p. 6.

(3) In 1938, Turkey came into a credit agreement with England whereby the latter made a loan of £. 16,000,000-£. 10,000,000 of which was to aid Turkey in her industrialization plans and the balance was to be spent on armaments. A portion of the loan bore 3% interest and the other 5.5% - all to be paid in goods. A quotation from the same speech, p. 6.

The portion of the loan meant to help industrialization was utilized in the application of the "Four-Year-Industrialization-Plan" that followed the "First-Five-Year-Industrialization-Plan".

(4) The "First-Five-Year-Plan" was applied in May 6, 1934 and completed in May 6, 1938. The second plan, the "Three-Year-Mining-Plan", complementary to the first great industrialization plan was applied in 1937 and completed in 1939. The third plan, the "Four-Year-Industrialization-Plan", was applied in May 6, 1938, but never completed. "Cumhuriyet Gazetesi", (The Republican Daily), Tuesday, March 14, 1939, p. 9.

The first plan, called the "First-Five-Year-Plan", was primarily intended to enable Turkey to develop an industry of her own. This first and most important of the plans provided for the development of mining as well as of industry. It included the establishment of a textile industry (cotton, wool and jute), of a cellulose industry (paper, cardboard, and artificial silk), of a glassware industry (glassware and pottery), a chemical industry and finally it included a sectional plan for the development of mining - a plan that aimed at the exploitation and further utilization of iron (of Divrik and Karabük); of semi-coke, coal and its by-products (of Zonguldak); of copper (of Ergani) and of sulphur (of Kechisborlu) ⁽⁵⁾ .

The above-mentioned first industrialization plan was financed entirely by the Sumer-Bank - a Government establishment created to finance industrial reconstruction - and it cost L.T. 107,000,000 ⁽⁶⁾ .

Before this "First-Five-Year-Plan" was over a supplementary "Three-Year-Mining-Plan" was applied in 1937. As this plan concerns mining directly its discussion is postponed until mining policy is taken up.

(5) Turkoşis, "Commercial Directory", 1937, p. 5.

(6) "Cümhuriyet Gazetesi", Tuesday, March 14, 1939, p. 9.

The portion of the total expenditure spent for the development of mining was L.T. 11,850,000 - distributed in this manner:

Iron	L.T. 10,000,000	Copper	L.T. 550,000
Semi-coke	1,000,000	Sulphur	300,000

Turkofis, "Commercial Directory", 1937, p. 58.

The third plan, the "Four-Year-Industrialization-Plan" applied as soon as the first industrialization plan was over in May 6, 1938, may be considered as the continuation of the first. It contained, mainly, the reconstruction of ports on the Black Sea (of Zonguldak) for the exportation of coal and of Trabzon for the exportation of Karabük metallurgical products), the creation of a service of ferry-boats and the acquisition of other means of transport (the service boats were to run between Sirkeji and Haydarpasha), the construction of residences in Ankara (about 453 houses to be built at the cost of L.T. 3,900,000), the foundation of a jute industry (based on the flax grown in the Adana region), the construction of several factories (a factory of agricultural materials in Ankara, a factory of conserved meat in Trabzon, factories of fruit, tomato juice, milk and cheese in different parts of the country), the construction of regional electric centrals (one in Zonguldak and the other in Kütahya), the creation of industries of domestic combustibles, milk, soda and azotic acid (at Karabük) and cement (at Sivas), the construction of new refineries (one in the lignite basin of Kütahya - to manufacture synthetic benzine, three other refineries - one of sugar between Bakkesir and Bandirma and the two others in the Eastern Vilayets), the construction of new ships and dock-yards (28 new ships and the dock-yards of Golden Horn, Istanbul, and Istinye), and, finally, it included a supplementary section for the development of mining. This section, considered as an extension of the mineral works announced

in the preceding year in the "Three-Year-Mining-Plan", contained, in particular, the development of chromium of the East, copper of Ergani and Murgul, argentiferous lead of Bolkardag and Keban, lignite of Kütahya and the amelioration of the installations of the coal-basin of Eregli so as to reduce the costs of production of coal⁽⁷⁾.

The above-mentioned "Four-Year-Industrialization-Plan" if completed would have cost L.T. 80,000,000 to be recovered in ten years⁽⁸⁾, and the financing of it was entrusted to Sumer-Bank and Eti-Bank. The former bank was charged with the whole plan except the mining section which was later given to the latter.

All these plans clearly indicate the government industrial policy - to reorganize the old industries and build entirely new ones to enable Turkey to become, as much as possible, industrially self-sufficient.

3. Government Mining Policy: Government mining policy is fundamentally the same as its industrial policy. The two leaders of Modern Turkey, Atatürk and İnönü, while planning the general industrialization of the country, have never neglected mining. Fully realizing the interdependence prevailing between the

(7) From the speech of Celâl Bayar, the Prime Minister, delivered on September 18, 1938, in the Grand National Assembly of Turkey.
Türkofis, "Monthly Bulletin", August-September, 1938, p. 5-7.

(8) Ibid., p. 7.

two, industry and mining, have laid equally strong
(9)
emphases .

The Leaders' will to improve mining found outlets in a policy of nationalization of the mines and in the sections reserved for mining in the general industrialization plans, already discussed, and in a separate "Three-Year-Mining-Plan".

a. Nationalization of the Mines: The main aspect of the government mining policy has been, up to the present, nationalization of the mines.

In 1923, the new Kemalist Government seeing that the Turkish people lacked the essentials for private enterprise, such as the initiative, capital and technical knowledge decided upon nationalizing the mines.

The policy of nationalization began later than 1923, because several years had to pass until the required number of governmental institutions, such as mining department, institute of survey and mining bank, could be established and run.

(9) Atatürk said, "The Turkish State Mining is very closely related to the national revival. In addition to the general industrialization, the search for mines and their exploitation are of prime importance from the point of view of means of payment and inflow of foreign exchange. It is necessary that the Institute of Mining Survey and Research should extend its activities and after careful planning and calculations start exploiting every newly discovered mine". An extract from his speech, "M.T.A.", Year 3, No. 1, January 1938, pp. 1 and 2. İsmet İnönü said: "A modern and advanced nation cannot live without industry and the civilization of to-day is based on coal and iron". Ministry of Economics, "İktisat Vekâleti, M.T.A. Enstitüsü, 'Zonguldak Maden Tatbikat Mektebi'", p. 3.

In the way of nationalization, the first task was the purchase of mines, primarily those that were owned and run by foreigners.

This policy, apparently, ~~must have~~ been so systematically applied that most of the mines, to-day, are state owned. Coal, copper, lead and emery mines are completely owned by the government. Moreover, most of the lignite, and chromium mines are also in government hands. A small number of remaining mines of lignite and chromium and all the antimony mines (not very considerable) are owned privately. But all these private enterprises are Turkish, with the exception of Tekir Ova (Antalya) chromium mine which is run and financed by foreign capital.

b. Mineral Planning: The supplementary mining plan comprised the following main points ⁽¹⁰⁾ :

- (1) Coal industry
- (2) Copper industry
- (3) Gold and lead industry
- (4) Iron ore
- (5) Research works

(1) For the coal industry, the fundamental aim was to modernize the methods of production and thus increase the total output of the Government owned coal mines. At the same time, a required number of technicians and workmen would be trained. In addition to coal, lignite production was to be increased by the exploitation

(10) "M.T.A." Year 3, No. 1, January 1938, pp. 6 and 7.

of lignite beds at Değirni Saz and its use encouraged⁽¹¹⁾.
All these were successfully achieved.

(2) Copper production was to be increased by exploiting efficiently the Kuarshan copper mines (2,500 tons), Ergani copper mines (7,500 - 10,000) and Murgul copper mines (10,000). This was also done.

(3) Gold and lead productions were to be augmented. In addition to Balya and Anamur the Bolkar-dağ gold and lead mines would be exploited. Also, Keban lead mines would be reorganized and exploited. These were also achieved.

(4) To meet the demand for iron of Karabük iron-steel industry the iron ore discovered at Divrik should be exploited. This was done and the extra quantities of iron mined which were not consumed by the iron-steel industry were exported.

(5) Oil researches would be intensified. So far, no commercial well has been discovered.

The above-mentioned plan ought to give an idea about the Government policy. Summarizing what has been stated, the Government wants to see that the productions of coal, lignite, copper, gold, lead, and iron are increased and that oil is discovered somewhere in Turkey. But, the Government policy has other aspects which have not been mentioned in this plan and must be stated as well. How such an intensification of production will be made possible? The Government believes that to

(11) In the law of combustibles, the Government forbids the use of wood when coal and lignite can be substituted, but particularly lignite. "Law of Combustibles" No. 259, passed on June 22, 1938 - Ankara - Department of Mining.

increase production, more and more searches must be made, mines must be nationalized instead of being left to private hands, they must be well organized and exploited on modern lines, and, finally, there ought to be up-to-date mining laws to regulate mining that is directed by individuals. All these points are discussed in details in the following sections.

4. Government Mining Policy and the Search for, Ownership, Organization and Exploitation, and the Regulation of, the Mines:

The mining policy of the Turkish Government, that has been already stated in the previous section as nationalization of mining, finds its expression in the government's attitude towards the different phases of the mining industry. The government plays the leading rôle in the search for, ownership, organization, exploitation and the regulation of, the mines.

a. The Search for Mines: In Turkey, the search for mines is undertaken by a government institute established for this purpose. So, the Government Policy has a direct bearing on this preliminary phase of mining. In accordance with the decision of the government surveys are intensified or slackened.

Before giving details on this relation, a description of this government agency is thought to be useful.

In 1935, in Ankara, the Institute of Mining Survey and Research (Maden Tetkik ve Arama Enstitüsü) was established to perform the principal duties of searching for mines and quarries suitable for exploitation,

to determine the measures to be taken with a view to increase the output of mines and quarries under exploitation and to carry out all surveying operations.

The Institute carries out this entire work for the government, but at times, by the permission of the Ministry of Economics, it does surveying work free of charge on oil fields and mines, for which surveying permits and concessions have been granted, to persons or corporations other than the government.

In general, the survey work is carried out by the Institute for its own account in any region and the documentary results are handed in to the Ministry of Economics.

The Institute of Mining Survey and Research is composed of mining survey and operation departments and managed by a general manager who is assisted by an assistant general manager, a sufficient number of heads of departments, specialists, engineers and other employees (12) .

The government that has established the Institute and runs it by its own officials hands over through its Ministry of Economics and its Department of Mining, the results of the work of the Institute to the Eti-Bank for exploitation, if the Ministry and the Department approves of the conclusions of the Institute.

(12) See Appendix I, "Laws on the Institute of Mining Survey and Research", p. 97, for the detailed description of the work of the said Institute.

The ~~so far~~ followed government policy of nationalization of mining^{followed so far} has had far-reaching effects on the quantity of searches for and surveys made of the mines. As the government has paid a greater attention to ~~it~~^{the mines} than was paid prior to their nationalization the already discovered mines were resurveyed and numerous other surveys were made. At present, practically all the scientific surveys are the work of this government institute and the number of such surveys has been in direct ratio with the intensity of the government policy.

b. The Ownership of the Mines: The Turkish government has, so far, been applying a policy of nationalization in the field of mining. As a result of such a policy, to-day, most of the mines are owned and financed by the state, through its recently (1935) established bank, the Eti-Bank. The privately owned mines are financed by Turkish capital, with the exception of Tekir Ova (Antalya) chromium mine which is financed by foreign capital.

It is not possible to give exact percentages of government ownership, but the following estimates on the basis of production figures may be given ⁽¹³⁾ :

	<u>Government</u>	and	<u>Private Ownership</u>
Coal	100%		-----
Lignite	80-90%		10-20%
Copper	100%		-----
Chromium	60-70%		30-40%
Lead	100%		100% ---
Antimony	---		100%
Emery (Glass-paper)	100%		-----

(13) Personal estimates of the assistant-director of the Department of Mining of Turkey, given during an interview on March 23, 1943, Ankara.

The Eti-Bank, the state-owned Bank which undertakes the exploitation of state-owned mines, possesses the following mines: The East chromium mines, the Ergani copper mines, the Murgul copper mines, the Bolkaradağ and the Keban lead mines, the Divrik iron mines, the Zonguldak-Eregli coal basin, Seyit-Ömer lignite mines, Kechiborlu (Keçiborlu) sulphur mines, Gümleman chromium mines, Kuvarshan copper mines, and Keshin molybdenum mines⁽¹⁴⁾.

Most of the above-mentioned state-owned mines are not yet fully exploited. When they are, the state's share of total mineral production will be about 70%⁽¹⁵⁾.

c. The Organization of Mining and the Exploitation of the Mines: With the government policy of nationalization in full swing most of the mines of Turkey are directed and managed by the Department of Mining (Maden Umum Müdürlüğü) which is attached to the Ministry of Economics (İktisat Vekâleti).

The Department of Mining, the Government Department in charge of organizing the mines has its general directory in the capital, Ankara. Its next important organization center is in Zonguldak. The General District Directory (Mintaka Umum Müdürlüğü) of Zonguldak is composed of a general director, a head engineer, three

(14) "Istanbul Chamber of Commerce and Industry" Istanbul Ticaret ve Sanayi Odası", November, 1938, pp. 25, 26, 473.

(15) Ibid., p. 473.

three engineers, two assistant engineers, one legal advisor, and twenty-six officials. Again in the same city, attached to the same bureau is a laboratory directed by a director and two assistants.

In addition to the above-mentioned two subsidiary organizations, subsidiary to the Department of Mining, there is an engineer in each one of these cities - Istanbul, Bahkesir, Muğla, and Eskisheher (Eskişehir); an assistant engineer in Fethiye; and two mining officials in Istanbul but one in each of the following cities: Kulluk, Smyrna (Izmir), Bursa, Eskichehir (Eskişehir), Darıdja (Dareca), Derinje (Derince), Kechiborlu (Keçiborlu), Mihalijik (Mihalıcık), Akcha Iskelesi (Akça Iskelesi) and Bandirma.

The Department of Mining that controls all these subsidiary centers is itself organized in a more complicated manner - having a director, an assistant and numerous officials that fill responsible posts.

Again for the same reason, nationalization of mining, the exploitation of the mines is, practically, a government monopoly and the intensification or otherwise exploitation of the mines is, to a great measure, dependent on the government policy.

The exploitation of the mines, discovered and found to be profitable, is undertaken by the government Institution of Eti-Bank ⁽¹⁶⁾, established in 1935. It

(16) The Bank has a nominal capital of L.T. 20,000,000 which by the existing law may be increased up to double this amount if the government and the General Committee of the Bank so desire. It can also issue bonds not exceeding L.T. 20,000,000, to be guaranteed by the Minister of Finance.

has branches in different parts of Turkey and is managed on commercial lines. It is authorized, by the Ministry of Finance, to purchase and sell mineral ores, take over surveying and preliminary prospecting permits, acquire mine concessions and permits for the exploitation of mines, obtain and exploit in Turkey concessions for the production, carriage and distribution of electric power stations and electric lines, and, finally, to carry on all banking operations.

The Eti-Bank takes over the charge of exploitation after the reports on the mines of the Institute of Mining Survey and Research are examined by the Ministry of National Economy. It is managed by a board of directors - a general manager with three assistants and a banking and a mining specialist.

The government policy has been to intensify exploitation. A consequence of such a policy has been the appreciable work done by the bank in this sphere. The first important achievement was to exploit the Guleman chromium mines close to Ergani⁽¹⁷⁾. Moreover, the Eti-Bank established the "Turkish Eastern Chromium Corporation"⁽¹⁸⁾ in November 1936. Also, the re-exploitation of Kuvarshan copper mines, abandoned long ago, was started by this Bank and, thus, for the first time in Turkey, pure copper was mined and exported to the United

(17) Istanbul Chamber of Commerce and Industry, "Istanbul Ticaret ve Sanayi Adasi", November 1938, p. 187.

(18) Ibid., p. 188.

(19)
States of America . The Ergani copper mines were modernized by the same Bank. The result of this was a record figure reached in 1939. In 1937 the Eti-Bank took over the extraction of molybdenum mines of Keshin and since then the exports of these mines have been increased. In the meantime the Eti-Bank took over the assets and the rights of the "Coal Company of Zonguldak-Eregli Basin", in May, 1, 1937, and rationalized exploitation (20) .

The extent of the future activity of the Eti-Bank depends entirely on the mining policy of the government.

d. Laws on Mining: The Turkish government has not yet taken pains to prepare a useful and encouraging set of mining laws. A great bulk of the Turkish mining laws, at present, are a translation of the French mining laws of 1810 (21) . They were accepted in 1906 (22) and applied, after some modifications were made in it . But, it must be added that the government is envisaging the preparation of better laws on mining and for this purpose a commission of engineers and lawyers was formed to study the mining laws of the United States of America (23) and Mexico .

(19) Istanbul Chamber of Commerce and Industry, "Istanbul Ticaret ve Sanayi Odasi", November 1938, p. 187.

(20) Ibid., p. 188.

(21) Ministry of Economics, "A General Survey of Turkey from an Economic Angle", (Türkiyenin İktisadi Bakımdan Umumi Bir Tetkiki), 1932-1934, p. 402.

(22) Ibid., p. 402.

(23) Ibid., p. 402.

The new laws, if they are ever prepared, must be keeping in view the encouragement of private mining, protection of national interests, provision against risk, and facilitation of formalities in securing concessions, licences for exportation, transfer rights~~et~~. Perhaps then the government will have made up for her negligence in this line.

5. Government Mining Policy and the Promotion of Mining: Promotion of mining is an essential element of the general economic policy of the Turkish government.

This policy of promotion can be observed as the general economic policy is studied in detail. The place mining occupies in government economic plans is a sufficient proof.

The different methods by which mining is promoted take different forms. The major method is directly planning mining in the government searched, owned, organized, exploited and regulated mines. Such a promotion has been already discussed under mining policy. Another method is a resort to numerous ways of promotion that are more of an indirect nature - such as technical instruction, exhibitions and subsidies.

a. Technical Instruction: Since the application of the first industrial plan the Turkish government has been trying hard to increase the supply of technicians and skilled miners to meet the constantly increasing demand for them. To meet this demand the government has increased the number of mining schools and to make up further for deficiency in the standard and the number of skilled miners produced in these schools, it has been

sending students abroad.

For local education in mining Turkey possesses two mining schools: one is the "School of Mining Engineering", in Istanbul, a branch of the University of Istanbul, and the other is the "School of Practical Mining", in Zonguldak (24).

As these two schools cannot meet the demand for instructed miners the government's solution of sending students to foreign countries has been on a constantly increasing scale. (25)

It may be added that both of the remedies or solutions resorted to so as to bring supply to the level of demand have not yet brought about a state of equilibrium.

b. Exhibitions: Another way of promoting mining, adopted by the Turkish government, has been advertising mineral products in exhibitions.

The first of such exhibits was the "International Exhibit of Heating Devices Using Coal", and this was opened to the public on January 16, 1936, in Ankara, at the "Ankara Exhibit Building". (26) The purpose in

(24) The "School of Mining Engineering" is an up-to-date and efficient branch of the University. The "School of Practical Mining" is of a much lower standard. It comprises three years of practical study after the elementary education. It accepts students between ages nineteen and thirty, either bachelor or married. "İktisat Vekâleti, M.T.A. Enstitüsü, "Zonguldak Maden Tatbikat Mektebi", p. 14.

(25) In 1940 the Turkish government had sent over fifty students abroad, mostly to the United States of America and Germany to specialize in different branches of mining. From an interview with the director of Eti-Bank, Mr. Reshit Genjer (Reşit Gencer), at Ankara, on April 7, 1940.

(26) Ministry of Economics, "Ekonomik Enformasyon Bülteni", (Bulletin of Economic Information), June 16, 1936, p.27.

this particular exhibit was to educate the public as to heating devices using coal and also to increase their sale. Certainly this would ultimately increase the demand on coal, thus encourage coal mining.

The same products exhibited in the "Ankara Exhibit Building" were later put on wagons and shown to the people in the different distant provinces of Turkey.

Approximately a year and a half later a more successful exhibit was "The International Coal Exhibit" inaugurated in Ankara in April 23, 1937 - May 23. It was the largest of its kind so far held in the country and the eleven foreign countries that participated contributed much to its success. ⁽²⁷⁾ In it all kinds of coal and its by-products were exhibited.

The above-mentioned exhibits were kept up and annually supplemented ^{by} the "International Fairs of Smyrna".

c. Subsidies: A third way whereby mining is promoted applies only to private mining. The private mining companies are subsidized by granting them reductions in railway, steam-ship and export customs charges. ⁽²⁸⁾

(27) The participating foreign countries were Germany, Czechoslovakia, Greece, Austria, Holland, Belgium, France, Italy, England, United States of America and Hungary. Department of Mining, "Beynelmilel K m r Sergisi", pp. 8-21.

(28) The staterailways make a considerable reduction, charging only L.T. 0.01 per ton-kolometer and the export duty on minerals was also reduced from 10% in 1933 to 1% in 1936. "Department of Mining, "M.T.A.", Year 1, No. 3, July 1936, p. 79.

The reduction in railway charges coincides with the coming into effect of the "Three-Year-Mining-Plan" - about 1937.

C. THE PRESENT POSSIBLE TREND IN GOVERNMENT MINING POLICY.

Although it still holds true, the policy of nationalization in mining may soon undergo a radical change, as judged by the opinions of men who direct mining.⁽²⁹⁾ The responsible officials state that private ownership has its advantages, in some respects weighing heavier than those of government ownership⁽³⁰⁾ and it must be given a fair play. They justify their opinion on this ground. During the last twenty years Turkey underwent some change. All the essentials that were lacking twenty years ago have now been fulfilled to a certain extent, to enable private enterprise to thrive. Railways have been extended. New motor roads and harbors are under construction. The new generation has partially acquired a new spirit of business enterprise, initiative and responsibility. Capital has become more available than was before and technique has made considerable progress. Such a change in the people, is stated, ought to bring about a change in the government policy. The mines must be gradually turned over to private hands, because it is felt that the individual owners can do better than the government officials who lack the spirit essential to maximum effort. But this policy, it is stated, ought not be applied until after the war for the following

(29) One of these responsible men is Mr. Rahmi Ören, The assistant to the director of mining.

(30) See Chapter VIII, "An appraisal of government policy", Section A, p. 66.

reasons: First, the government control can insure better coordination between the interdependent industries than when those industries are given a free play in the form of private ownership. Secondly, as the political situation is critical, the government does not want a shift of control over mineral industry to the still inexperienced private hands, a policy that is in harmony with the old saying 'Don't change the captain in a stormy weather'. Thirdly, the government can and will undergo loss to satisfy national demand, a policy that private enterprise may be reluctant to adopt even when national interests are at stake.

The above-mentioned possible trend in government mining policy has not yet found an expression in the policy. It is only in the head of men who direct mining.

VIII. AN APPRAISAL OF GOVERNMENT POLICY

- A. Government Versus Private Ownership
in General.
 - 1. Advantages of Government ownership
 - 2. Advantages of private ownership
- B. Rise of Government Ownership in Turkey
- C. An Appraisal of the Present as well as
the Present Possible Trend in Mining
Policy.

VIII

AN APPRAISAL OF GOVERNMENT POLICY

It is not to influence the government in ~~its~~ decisions but for the sake of analysis that this section of the present chapter will be devoted to this disputable point. First, the advantages and disadvantages of government versus private ownership will be discussed. This will be followed by the advantages of government ownership in Turkey and the circumstances that led to it. Finally, an appraisal of government ownership as compared with the new tendency to develop private ownership will be made.

A. GOVERNMENT VERSUS PRIVATE OWNERSHIP IN GENERAL.

1. Advantages of government ownership: Certainly, government ownership has several advantages over private ownership. The following points are to support this statement.

a. With regards to finance the individual enterpriser is at a disadvantage. Capital required for exploitation can be more easily secured by a government than by individual mine owners. The government, primarily, has all the budget at its disposal. Especially in times of emergency, vast sums may be ~~set ready~~ ^{made available} by one vote of the assembly. It can also borrow from the banks at relatively lower rates. In case the required sum is not available it can resort to international borrowing. Furthermore, the government-owned property may be exempted from taxation, thus mining costs are comparatively lower.

All of these points help a faster expansion of government enterprise.

b. In the case of government ownership, employment is, generally, free from the abuses of private employment, such as favoritism to certain individuals, overlong hours of work, insanitary conditions, night work for boys and underpayment for skill.

c. Government ownership provides for a greater security in the country than the private ownership can. By paying fair wages which are uniform throughout the country, which increase with the tenure of service, by demanding reasonable hours of work and by giving better conditions of work the government avoids strikes.

d. The growth and the tendency of a private enterprise to become a monopoly is objectionable, because the individual enterpriser, when financially strong, may attempt to influence the government policy to insure the absence of competition so as to raise prices regardless of public welfare.

e. Government ownership insures greater coordination between the different interdependent enterprises because it results in the establishment of a central management. Thus, a rational economic revival plan can be more successfully applied.

f. The government is ready to undergo a financial deficit or loss in a particular enterprise to satisfy the national demand. It is in a better position to do so than an individual enterpriser, because the former can cover the loss by the possible surplus profits of other indus-

tries also owned by it or from its budget whereas the latter cannot.

g. Government ownership is the only solution for the establishment of any industry in a country where individual initiative is lacking. Where there are no individuals to start an industry only the government can do it.

h. Especially in ~~the~~ mining the government is at an advantage with regards to the choice of location and profitability of a mine. While the individual enterpriser prefers the exploitation of mines near to an industrial center the government is concerned with the potentialities of the mine. The former may be decreasing its costs by cutting down transport charges, whereas the government can move the old industry or build an entirely new dependent industry next to the mine or connect the potentially rich mine to other industries by a net-work of railways.

e. Finally, the individual enterpriser may be following a method of exploitation which may be detrimental to the country. He may be searching for and exploiting veins that are profitable at the time and neglecting the minor veins. The government, by extracting the minerals of both veins, thick and thin, wastes no mineral wealth.

2. Advantages of private ownership: The individual enterprise has its own advantages over government ownership.

a. Government ownership kills individual initiative, individual enterprise, individual responsibility, and individual accomplishment. It is the existence

of such qualities that has made progress possible.

b. Private ownership insures greater efficiency, greater economy in management and therefore has lower costs. The reason for greater efficiency is inventiveness stimulated by the hope of reward in reasonable profits, whereas the government is indifferent to inefficiency. The government officials lack the profit motive and sense of responsibility; so, they are extravagant in administration and slow to respond to the demand of industry for maximum of technical skill.

c. The government is singularly unfitted to conduct a business, particularly in experimental stage. It lacks the acumen of the man of business - his foresight and the creative spirit.

d. Because of the fact that the government can borrow capital more easily, unnecessary sums are borrowed and spent uneconomically. The result of such a policy is increased national indebtedness.

e. It is easier and more probable to bring privately managed business to a high basis of efficiency through government control and supervision than to raise state departments to ordinary level of efficiency of business corporation.

It must have been observed that, apparently, government ownership has more advantages in its favor. But individual enterprise has one major argument which counter-
(1)
balances all the arguments of government ownership.

(1) This point of view is similar to that of the assistant at the Mining Department. From an interview with Mr. Rahmi Ören, March 23, 1943.

The private enterpriser has a creative spirit. Fearing failure, but certain that in case of success the fruits of his work will be proportional to his efforts, he works day in and day out, incredibly hard, to win the battle of life. This results in greater production, beneficial to the nation as a whole.

B. RISE OF GOVERNMENT OWNERSHIP IN TURKEY.

The leaders of Turkey were aware, in 1923 as they are to-day, of the possible achievements of private ownership. But at that time, not ^{only} mining, but any other kind of private enterprise of importance was ~~not~~ ^{hardly} possible. Having remained ignorant, inexperienced in private enterprise and poverty-stricken because of constant wars for centuries the Turkish people, in 1923, lacked the initiative, the technique and the capital necessary to start an industry. The incapacity of the individuals was reflected in the state of mining which was definitely primitive. With the exception of the Zonguldak coal basin and the Ergani copper beds all the other mines needed reorganization. Their installations and implements were out of date. Moreover, the existing means of communication were in a deplorable state. There were neither roads, nor harbors, nor a sufficient mileage of railroads. So, in the absence of all the requirements such as initiative, technique and capital for a successful beginning and continuation in individual enterprise and the deplorable state in which mining stood the government alone could undertake mining, in spite of the fact that it knew that private ownership was more efficient.

The Turkish government, realizing the critical state, at once set up a department of mining in the capital with sub-departments in different mining regions, an institute for survey and research and also established a credit institution, the Eti-Bank, charged with the task of exploitation of the prospective mines.

After the institutions were organized, the government gradually began to nationalize the mines, by purchasing them from private hands and to make extensive surveys in different parts of the country for prospective mines. The plan of purchasing was applied first in the case of mines owned and exploited by foreign interests.

Lapse of years strengthened the government hold on mining, as mines were systematically bought and the newly discovered mines were surveyed and could be owned only by the government. (2)

C. AN APPRAISAL OF THE PRESENT AS WELL AS OF THE PRESENT POSSIBLE TREND IN GOVERNMENT MINING POLICY.

The government control and ownership of mining has borne certain apparent fruits. In the sphere of production, there have been considerable and steady increases in the annual productions of most of the minerals. Coal, lignite, chromium, copper, antimony, zinc, cement, emery, argentiferous lead and iron annual productions confirm

(2) See Chapter VII, "The Development of Mining Policy in Turkey", p. 44-65.

(3)
this statement . Excluding the last year or a few other preceding years in which extremely abnormal conditions have prevailed, the exports of most of the minerals have indicated increases every year. (4) Coal, chromium, and copper were amongst the outstanding items of export. Home consumption of minerals such as coal, lignite, zinc, cement, emery, lead and especially of iron has increased beyond expectation. Home prices of lignite have fallen due to a fall in its cost of production. Costs of production of chromium, as well, were appreciably reduced.

It is true that the government has achieved the above-mentioned results, but to justify its control certain other criteria are essential. First of all, the government must make known to private research workers its balance sheet. If the government has been running the enterprises at a loss its control is uneconomical. If there are profits, such profits must be compared, firstly, with the profits that the individual enterprises could possibly get secondly, with the rate of interest prevailing at the time. If the government profits can favorably compare, there must be made a final comparison - this time between the efficiency of management of the Turkish government and that of similar governments. Therefore, unless profits are known and the two above-mentioned comparisons

(3) See Chapter IV, "Development of Mineral Production in Turkey", p. 22-30.

(4) See Chapter VI, "Home Consumption and Exportation of the Turkish Minerals, and their Local Prices as Compared with those of the World", p. 36-43.

are made a justification of government control is
(5)
based on no concrete grounds.

The tendency to modify the present policy should not give the impression that the government has made a total mess of things. It is a hasty conclusion. The desire to modify policy may be rightly due to: superiority of private to government ownership and, secondly, to the maturity of the Turkish people enabling them to undertake private enterprise which, as stated in the first part, may prove to be superior to government ownership.

If the government finally attempts to hand over mining to private ~~hands~~^{enterprise} control over such ~~hands~~^{enterprise} must ~~not be raised~~^{continue}. The Turkish government must supervise the management of private enterprises to guard the interests of the people by ~~insuring~~^{to} the laborers a comfortable living and the community a reasonable price. Such a policy of supervised mining can thus combine efficiency with welfare.

But supervision must be accompanied by encouragements so that the start can be more easily made. The government must extend facilities to private companies - grant to them subsidies in the forms of lower transport charges, lower, or exemption from, taxation, and, if necessary, cover their losses, at least at the start. Moreover, it must prepare better mining laws and open higher mining schools. These suggestions with the many others made in Chapter X may enable the inexperienced mining enterpriser to stand on his own feet, ready to meet internal and external competition.

(5) Up to the present time, it has not been possible to

IX. PROBLEMS CONFRONTING MINING IN TURKEY

- A. Availability of Capital and Labor
- B. The Problems of Means of Transport and Exportation.
- C. The Problem of Technique in Production of Minerals and in the Management of Industries Dependent on Mining.
- D. The Problem of Foreign Competition

IX

PROBLEMS CONFRONTING MINING IN TURKEY

A. AVAILABILITY OF CAPITAL AND LABOR.

Until the outbreak of the World War II availability of capital, especially local, for investment in mining was not a serious problem. The state-owned mines could be financed by the Eti-Bank. But the present war, obliging ^{the} Turkish government to invest the greatest portion of ~~her~~ ^{its} available ~~capital~~ ^{revenue} in armament industries, has reduced the portion available for mining itself. When the war is over the problem will be less serious.

Capital locally supplied by the individual mine-owners or the individual investors for the exploitation of privately owned mines has, as in the case of state-owned mines, also been reduced by the present war. The investors, aware of the uncertainty of the political situation refrain from making further investments in mining. They believe that an unexpected war may destroy their mines. Even if Turkey remains neutral, there is a difficulty in securing the essential machinery and other implements from the belligerent countries. In this respect the government is at an advantage due to the existence of priority laws.

to secure the Turkish Government budget, due to ~~the~~ present circumstances. Even if it were available, from budgetary figures, to discover how much revenue (gross or net) the government was receiving from the mines would not be possible.

In pre-war Turkey the privately supplied capital was short of the demand because of the general poverty of the people and their lack of confidence in private business. The post-war supply of capital will probably augment as the national income is steadily rising.

The supply of foreign capital in general has been limited due to the policy of the Turkish Government to leave as little a foothold for the foreigner as possible so as to avoid the repetition of the dangers that foreign economic penetration under the Ottomans had created. The foreigner is not permitted to invest in mining or manage a mine, even under control, unless the Turkish capital and technique are inadequate. Another reason restricting the supply of foreign capital is the uncertainty in the political situation. The foreigner fears the confiscation of his property in case Turkey is involved in the conflict against his country. But this point is not as serious as it appears at first thought, because the foreign individual investor or the investing or loaning foreign government envisages an economic loss with a view to win political sympathy. Thus, the supply of foreign capital is not ~~so~~ strictly short of the demand, at least at the present time. Whether it will be increased after the war or not will depend upon the outcome of the war and the supply of local capital.

Availability of labor is another problem that mining in Turkey has to solve, especially at present. The possibility of Turkey being driven into the war

forces Turkey to keep large reserves of men under arms. As a portion of these men in the army were formerly employed as miners, mining industry, as other industries except the armament industries, suffers from deficiency of labor-supply. This is ~~just~~ one reason. There is another reason which restricts the supply of labor for the moment as it did in the past. It is the nature of the Turkish people. There is a certain reaction against, or dislike for, under-ground work. A typical Turk is one who enjoys tilling or defending the soil and not digging for minerals. ⁽¹⁾ Such an attitude is strengthened by constantly recurring accidents at the mines. ⁽²⁾ Certainly, such incidents make mining undesirable and directly affect the supply of labor. Unless there is a total change in the attitude of the people and provision against accidents availability of labor will be a permanent problem. The case of miners kept in the army is a temporary problem.

(1) I suggested to the director of mining to make work at the mine more attractive than elsewhere. He said that they were doing their best in that line but the success really depended on changing the minds of the people through education at schools. If the Government did not succeed in changing the attitude of the people by this means, it would resort to forced-labor at the mines.

(2) Hardly a few months ~~are over when~~ ^{pass without} a major accident ^{being} reported. On March 4, 1943 one of the coal veins of Zonguldak collapsed and seventy-eight miners were reported missing. Previously, there were several cases of mass poisoning reported at different mines.

B. THE PROBLEM OF MEANS OF TRANSPORT AND EXPORTATION.

Turkey is insufficiently provided with means of transportation, compared with many other countries. There is not yet any considerable length of well-paved roads. Railways, although doubled since 1923, must be further extended to meet the constantly increasing demand for means of transport. A third type of means of transportation is the sea. But, for different reasons, the seas are not much utilized. The Black Sea develops high tides in autumn and spring, even coast-wise shipping is risky. Excluding Istanbul and Smyrna (Izmir) there are no real harbors, well-protected and having modern installations, in all the other seas. The rivers are fast running and shallow. Thus, they too render no service.

Although the present state of means of transportation is largely attributable to natural conditions hindering the construction of proper roads, railways and harbors, yet more efforts should and could have been made. No matter what have been the reasons, mining suffers from lack of transport facilities. Many of the mines are not yet connected to nearby harbors and even when they are connected, as the harbors lack modern facilities, the latter are not of much service. It is indispensable that this problem should be solved if mining is to make more rapid progress.

The export problem concerns the means of transport from the frontiers of Turkey to the importing countries. Before the present war, this problem was confined to the difficulties of loading at the harbor. As has been

already mentioned only two harbors could load and unload goods of considerable weight and at satisfactory speed. At present, to this difficulty has been added quite a serious one - the sea and land transport problems of the importing countries. Formerly, as now is the case again, the British cargo-ships that used to come to Mersin harbor, in north-eastern Mediterranean, were kept waiting for several days, because the daily loading capacity of the harbor was limited. To-day, in addition to lack of harbor facilities, the British freighters cannot come regularly because of sea and air attacks and sub-marine menace. The wagons that carry chromium supplies to Germany are exposed to air attacks and sabotage on all their way through from the Turkish border at Adrianople up to Germany. Furthermore, not only the means of transportation but also the system of payments makes exportation more difficult. The clearing agreements according to which goods are exchanged are a modern form of early barter. In order to be able to get the maximum quantities of foreign goods the exchanging governments raise their selling prices and currencies to such an extent that trade ceases to be profitable.

The post-war export problem will most probably be less serious. The seas will be open and safe for trade. The export harbors of Turkey will be modernized as some are now under construction. Also, the fast moving European wagons will run unhampered.

C. THE PROBLEM OF TECHNIQUE IN PRODUCTION OF MINERALS AND IN THE MANAGEMENT OF INDUSTRIES DEPENDENT ON MINING.

One of the important problems of mining is the problem of technical knowledge. In spite of the great efforts of the Government to educate miners at home and abroad and to acquaint the other uneducated miners with modern mining machinery and tools the productivity of the average Turkish miner is about one-fourth that of a British miner. There is a great need for higher learning in the profession of mining and also for experience. More and more miners must be trained so that there is in the country a portion of the population that may be called professional miners.

The problem of technique extends itself from that of mineral production to the sphere of management - of the industries dependent on mining. Mining faces the serious problem of coordination - at what rate mineral production must be kept or increased so that the requirements of the dependent industries will be met.

To appreciate the magnitude of the problem the following brief exposition of interdependence between mining industry on one hand and the dependent industries on the other will be made.

Approximately all the newly constructed and the old industries of Turkey use the Turkish minerals as raw materials. For instance, all the coal, copper and manganese requirements of the state-owned armament factories are met by Turkish mineral output. Karabük steel works factory depends exclusively on the iron and coal mined in Turkey. All the railways are run by the

Zonguldak coal. The cotton and silk textile factories also consume the same fuel. It may be said that the whole Turkish industry is so dependent on the Turkish mineral output that if due to some unexpected reason mining is hampered the industries will not work. This is the case especially at present, as war has created so many import and export problems. Even if sufficient shipping space were available whether or not the belligerents would be willing to export a portion of their mineral output vital for their war effort is another question.

After observing this close interdependence we pass on to the technical problem that arises - how much must be the total output of each mineral to meet the requirements of the industry using it as a raw material. This has always been a problem for the Departments of Mining and Industry to discover. The present war has increased the magnitude of this problem by increasing the demand for minerals but reducing its output. Total coal production which would always result in a surplus for export now is far below the total home demand. Certainly, the reestablishment of peace will make this problem somewhat simpler, but as long as human judgement is liable to err, the problem will be there.

D. THE PROBLEM OF FOREIGN COMPETITION.

The fact that the productivity of the Turkish miner is relatively low, because he lacks the technical knowledge, the experience and the most up-to-date machinery and the home transport charges are relatively high, the

Turkish minerals have always had to face severe competition in the foreign markets. The Turkish coal can compete only in the nearby markets - in Roumania, Bulgaria, Greece and Syria. Chromium and copper would meet with little competition in Europe, because the other world sources of these minerals ~~are~~^{are} very distant. But in distant markets, Turkish chromium will be at a disadvantage.

At present, Turkey exports only chromium at incredibly high prices because of the ~~Anglo-German~~ competition, ~~between England and Germany, each trying~~ ^{each} to satisfy fully its own requirements and, at the same time, deprive the other of an essential war material. This condition will last as long as Turkey is neutral. Once the war is over, chromium will not be sold at such a high price. England and Germany will no more be competing so severely. Especially if Germany is defeated there will be no German armament industry dependent on Turkish chromium. Then, the competitive power of chromium, as will be the case with all the other minerals of Turkey, will depend upon the productivity of the Turkish miner, the transport facilities at home and abroad and the extent of economic cooperation amongst nations.

X. SUGGESTIONS TO IMPROVE MINING IN TURKEY.

X

SUGGESTIONS TO IMPROVE MINING IN TURKEY

Mining in Turkey is far from perfect, in spite of the fact that the Government has taken all the steps ~~it~~ could to improve it. The imperfection has been due to many reasons already stated. ⁽¹⁾ The following suggestions may be made to effect a real improvement.

1. The Government Institute of Mining Survey and Research should undergo reorganization. Its personnel should be mostly replaced by younger men who have stamina and speed. Furthermore, this newly organized body ought to have greater freedom of action in its decisions and their applications. With greater responsibility granted to them they should speed up their surveys over the country. The geological structure of Turkey indicates the existence of oil in different parts of the country. Failure, so far, to find oil in commercial quantities may be attributed to inefficiency of the Institute.

2. All the mines, especially those that have been under exploitation for a long time, ought to be reorganized. A large number of the personnel should be changed and better trained men employed. The machines and the auxiliary implements used must be replaced by more up-to-date machinery of all sorts.

(1) See Chapters VIII, "An Appraisal of Government Policy", pp. 66-73, and IX, "Problems Confronting Mining in Turkey", pp. 74-81.

3. Better, cheaper and faster transport means, like trains and trucks, ^{ought to} be sufficiently increased or established newly to connect the isolated inland mines to the ports of export. This improvement will demand a greater number of new wagons, locomotives and railways, and an entirely new set of connecting roads on which trucks may run ⁽²⁾.

4. After the Mining Institute of Survey and Research and the mines are reorganized and means of transport improved or newly established the harbors of export should be enlarged and modernized so as to increase their loading capacity. Moreover, the routine formalities at the harbors must be, if not entirely removed, lessened so that shipping is simplified.

5. Freight charges of all kinds for the transport of minerals from the very mines until the foreign harbors of import must be reduced some way and to a certain extent so that the Turkish minerals may compete better in the world markets. A considerable portion of the costs of Turkish minerals on sale in world markets is made up of transport charges.

6. Mining must be made more attractive so that a steady ^{supply} ~~class~~ of miners may exist. Most of the present miners are those farmers who work at their spare times

(2) To avoid making this brief chapter of suggestions tiresome the author has not included the specific cases. The reader who is desirous to know such details is requested to make a comparison of the railway system of Turkey with the mines under exploitation in Turkey. To reascertain the locations of the different mines he is referred to Chapter III, "Significance, Geographic Location, Size and General Characteristics of Mines in Turkey", pp.9-21.

or when it is not the harvest time. In order to make mining attractive the following remedies may be suggested:

a. Miners' wages must be raised at the expense of freight charges so that the total cost will at least be kept the same. After the cost of living is further reduced,⁽³⁾ money wages may be reduced.

b. Residences or dwelling houses must be built for the miners at the mines so that they will not have to lose time and energy to get to work. Most of the miners, whether employed temporarily or permanently have to come from near-by villages very often many miles away. Those who live at the mines in tents are relatively few and they suffer a lot during the winter months.

c. All miners, especially those who are very much exposed to danger, ought to be insured by the state against accidents resulting in injury or death. To this point the attention of the Government is urgently called.

d. The Government should, in addition to compensating in case of death or injury the beneficiary or the miner himself, prepare retirement plans against old age or inability. This point is complementary to the first but deserves a separate mentioning.

(3) Cost of living in Turkey had been steadily falling until the war broke out. Even after the outbreak of war the rise in prices, as compared with that of Syria, has not been so great.

7. More training schools must be opened at home and more students must be sent abroad so that with the increasing knowledge and skill of the miner his efficiency might be raised. Moreover, a class of trained miners may be all the time available, thus fluctuations in the number of available miners and also in their wages may be avoided.

8. In Turkey, besides the big state-owned mining companies there are those small privately-owned companies. They must be amalgamated (those that can be), and in their operations these private enterprises must be given some state aid. Such an aid may find expression in allowing the State Institute of Survey to undertake surveys and researches for them at little or no cost to them, and in giving advice regarding management, in case those particular companies are inexperienced.

9. Unbiased resort to foreign technical knowledge must be made not only in the way of extraction of minerals but in the management of the mines as well. At present, foreign technical knowledge is utilized mainly at researches.

10. Expositions of the products made of the minerals extracted in Turkey must be made so as to encourage the purchase of such goods. At present, such an encouragement finds an outlet at the International Fair of Izmir, but it is not so frequent so as to be of real value. Expositions ultimately mean a greater demand for mineral products and so encouragement of mining.

11. The Government Department of Mining, just like the Government Mining Institute of Survey and Research, should be reorganized. The personnel of this Government Department, the officials, must be gradually replaced by younger men who constantly keep in view the welfare of the state and the people rather than their personal interests. Like the Institute officials they also must be given greater responsibility.

12. The Government ought to ^{make} ~~set up~~ mining laws more suitable to prevailing conditions. The old obsolete set of mining laws must be entirely discarded and not simply modified.

13. The Government must more fully ^{realize} ~~realize~~ the advantages of private enterprise over government ownership (4) and ^{if advisable} ~~thus~~ hand over some of the mines to private hands to be run under its own supervision rather than following a policy of wholesale nationalization. The Government officials lack initiative and this is indispensable for development.

14. Foreign capital, like foreign technique, must be more widely and fully utilized. As long as the foreign lenders are not backed by their respective governments there is no reason for exercising great care and caution in this matter.

The above-mentioned suggestions are a few of the many that can be made. Yet, if a few of these are applied at once and relentlessly we may expect ^{appreciable improvement} ~~a revolution~~ in Turkish mining.

(4) For this debatable point see Chapter VIII, "An Appraisal of Government Policy", pp.66-73

XI. FUTURE POSSIBILITIES OF MINING IN TURKEY

- A. The Existing Mineral Potentialities.
- B. Factors Promoting Development
 - 1. The system of research and the methods of production.
 - 2. Government policy.
 - 3. The interdependence of industrial and mineral developments.
- C. The Trend in Production.

XI

FUTURE POSSIBILITIES OF MINING IN TURKEY

Generally, it is hard to forecast the future because all the factors are not constant. But, in spite of all uncertainties and great possibility of ~~being~~^{making} on the wrong track of judgement, the economists attempt to forecast. Even if time disproves what has been said yet to make such statements is of value. It means interest in what is judged likely to happen and that interest may be the cause of progress in that line.

Whether mining in Turkey is a promising economic activity or not is the central point in this chapter. The point of view whether optimistic or pessimistic will be presented in brief with reasons in its support.

Turkish mining seems to have a great future possibility, and this belief may be based on the following facts:

A. THE EXISTING MINERAL POTENTIALITIES.

The potential mineral wealth of Turkey is still in the process of being accurately estimated. Therefore, no final statement can be made, but the experience or the knowledge so far acquired indicates that Turkey is rich in minerals. The variety of minerals already discovered and the number of mines under exploitation, alone, may justify this statement. But, what is already on hand, the geologists say, is a fraction of what is yet to be

(1)
discovered. The geological structure of Turkey is the basis for their argument.

If, what is already in existence and what will be discovered are taken into consideration, it can be argued that mining activity has a bright future. Certainly, the greater the mineral potentialities are, other factors remaining the same, ^{the} greater will be the future possibilities of mining in Turkey.

B. FACTORS PROMOTING DEVELOPMENT.

A great potentiality in mineral wealth does not mean a promising future unless there are factors that promote the development of that wealth. The following are the factors that will, most probably, help Turkish mining become a flourishing industry.

1. The System of Research and the Methods of Production: One of the important factors is the system of research and the methods of production in the mines. The system of research that is employed by the Institute of Mining Survey and Research can be said to be scientific and relatively efficient. The number of surveys and researches made by the said Institute is an evidence of the satisfactory work that is being done. (2) During the last six years numerous mines have been surveyed, investigated and handed over to the Eti-Bank for exploitation.

(1) See P. Arni, "Relations Entre la Structure Régionale et les Gisements Minéraux et Pétrolifères d'Anatolie", 1939.

(2) For a detailed information on the activities of the Institute refer to "M.T.A.", Year 3, No. 1, January, 1938.

Thus, it is more likely for mining to prosper when the system of research is efficient than otherwise.

The methods of production bear as much weight as the system of research. Mineral wealth may be extensive and a scientific research may be made for it, but all this will not serve the mining industry if the methods of production used at the mines are primitive. But, generally speaking, the methods of production are gradually being improved in Turkey.⁽³⁾ In many of the mines production has been reorganized - obsolete machinery discarded and replaced by up-to-date ones. No doubt, better methods of production bring about a relative increase in production and ultimately, if other factors are unchanged, mining develops.

2. Government Policy: Future possibilities are further increased by the policy of mining of the Turkish Government.⁽⁴⁾ Until the present time, the Government has been taking an active part in the exploitation of the mines with a view to take the steps essential for the expansion of mining. It has been applying carefully prepared plans of steady increase in production. Whether she takes an active part or not in the future, the writer can venture to make a prophecy that the Government will always promote mining, in which case, mining industry will have to follow one course - that of

(3) The Ergani, Guleman, Kuvarshan, Bolcardag, Zonguldak, Divrik and several other mines are run on modern lines and the machinery and equipment used are quite up-to-date too.

(4) For details refer to Chapter VII, "The Development of Mining Policy in Turkey", pp.44-65.

expansion and development.

3. The Interdependence of Industrial and Mineral Developments: Here, as well, it is essential to mention that the national economic revival in Turkey is dependent on the successful exploitation of the mineral wealth. (5) Nearly all the exploited minerals serve such a revival in either of the two ways - by serving as raw materials for the industries, or as items of export so as to acquire foreign exchange to import other materials essential for the industrialization of the country. If mineral wealth is not exploited properly and efficiently the industrialization of the country can hardly take place. For this reason, if industry is to develop, mining must have a parallel development.

C. THE TREND IN PRODUCTION.

The existing potentialities and the factors promoting development in mining are encouraging points. But the past may be recalled to reassure us to confirm our belief and be more hopeful as regards the future. The past records in production may be taken as evidences of a rising tide. Excluding a few mines the annual production figures of the other mines indicate increases. (6) Such evidences are clear and certain enough to help us be optimistic about the future.

(5) Refer to Chapter IX, "Problems Confronting Mining in Turkey, pp. 74-81.

(6) See Chapter IV, "Development of Mineral Production in Turkey, pp. 22-30.

But it must be remembered that too optimistic a view on this subject is not advisable. In spite of all the already-mentioned encouraging aspects mining may take a long time to become flourishing - that is to say - the time limit within which that important progress is expected may be too long. The spirit of and the desire for progress may not be too strong to achieve a speedy progress. Furthermore, there are other points mentioned in the preceding chapter that must be heeded. Those suggestions must be considered fully when the industry is on the march.

When the spirit is strong and the suggestions are considered we may then depend with assurance that time will definitely tell us that what we hoped, came true.

XII. SUMMARY AND CONCLUSION

XII

SUMMARY AND CONCLUSION

Mining that was once local in importance, at present has grown so much that it has acquired international aspects and significance.

The growing tendency amongst nations to industrialize, by increasing the demand for minerals has given rise to the greater interdependence of world nations and to the application, by the most highly industrialized ones, of commercial policies to secure the greatest possible supplies of minerals.

Turkey, one of the comparatively richest mineral possessing countries of the world, every day is becoming more involved in the struggle of world nations to secure the minerals that their ~~needing~~ industries require.

Considering such a relation between the world and Turkey, this thesis, by ~~describing~~ ^{describing} mining in Turkey must have given an idea as to the future possible contributions of this country to the industries of the world. Herein lies its significance.

History of mining in Turkey comprises the Hittite, Seljuk and Ottoman periods during all of which mining played a rôle. Excluding the second half of the Ottoman period mining was a flourishing industry on which the civilization of each period was based.

In their ~~turns~~ ^{order} of significance to Turkey, coal, lignite, chromium and copper surpass all the other

minerals, such as borax, emery, manganese, cement, meerschau, iron, sulphur, arsenic, antimony, zinc, argentiferous lead and mercury. In general, the mines are fairly scattered, extensive in size, and their mineral contents are high in quality.

The development of mineral production in Turkey presents a sharp contrast when the productions of periods prior to and after 1923 are compared. While the former period is all irregularities in mineral productions the latter shows regular and systematic rises.

A comparison of mineral variety, reserves and output of Turkey with those of the world reveals the relative riches of Turkey and the rôle Turkey will one day play in world mineral productions and mineral trade.

Excluding coal, lignite, cement, iron, sulphur and meerschau, all the remaining minerals of Turkey are exported. When home industries using these minerals are established their exportation will most probably, have to be curtailed. Home prices of minerals that are both used at home and exported are relatively high. This may mean that Turkey has been resorting to dumping. The minerals that are entirely exported have no special home prices.

The development of government mining policy in Turkey shows that before 1923, the declaration of the Turkish Republic, there was no policy in the sense that it exists to-day. After 1923, the new government, by adopting financial, industrial, and mining policies seems to have fixed plans. In the sphere of mining the present government seems to be aiming at developing

mining by acquiring complete control over the searches for, organization and exploitation and the regulation of, the mines, through nationalization. In the meantime, mining is promoted by technical instruction, exhibitions and subsidies to private mining,

The general advantages of private ownership weigh heavily against government ownership. In spite of its disadvantages government ownership was the only way whereby mining could develop in a country where initiative, capital and technique were entirely non-existent. But, at present, there are slight signs of modification in the government policy in favor of private ownership. An appraisal of the present policy and the possible modification, favors the modified policy provided the ensuring private ownership is sufficiently supervised and guided.

Mining in Turkey has its own problems to confront. Lack of capital, of labor, and of the means of transport and exportation, the problem of technique in the production of minerals and in the management of industries dependent on mining, and finally the problem of foreign competition are amongst the outstanding handicaps the mining in Turkey has to overcome to-day.

Many suggestions can be made concerning mining in Turkey. But, in brief, the following seem to be the fundamental ones if mining is to improve. First, all the institutions directly connected with mining must be reorganized. Then, the problems mentioned above which mining is confronting in Turkey, must be completely removed.

Mining in Turkey seems to have great future possibilities. The existing mineral potentialities, certain factors promoting development and the trend form the ground on which such an argument can be based. But, time alone will tell whether the forecast of to-day will be a reality in the future or not.

As a conclusion the following may be mentioned:

The information on hand concerning the value and extent of Turkish mineral resources is insufficient to enable a person to judge accurately the present total mineral wealth of Turkey.

Excluding the combustibles and construction materials which are indispensable, most of the minerals of Turkey are not of prime importance for the present economic revival in Turkey, though some, such as chromium and copper offer promises for the future.

In order to finance the purchase of machinery and other materials necessary for the application of the industrialization plan, Turkey is trying to have as many valuable export items as possible to obtain the needed foreign exchange. It is for this reason that the exportation of coal and especially of chromium is of importance. For the same reason, the production of sulphur for exportation will be further increased.

Several of the Turkish mines, such as coal, chromium, and iron are within easy reach of outside markets, as they are all near the seashore. This is an advantage, but it is decreased by lack of connecting railways and of modern harbors.

APPENDICES

- I. LAWS ON THE INSTITUTE OF MINING SURVEY AND RESEARCH (1).
- II. LAWS ON THE ETI-BANK (2)
- III. WORLD MINERAL PRODUCTIONS AND TURKEY

(1) Ministry of Commerce, "Commercial Directory of Turkey", 1937, pp. 129-133.

(2) Ibid., pp. 126-129.

I. Law on the Institute of Mining Survey and Research.

Article 1. An Institute called the "M.T.A. Institute", (Institute for mine surveying and prospection) has been founded at Ankara. It will have a corporate body and will be subject to the provisions of the present law of the civil law.

The M.T.A. Institute will be managed according to commercial methods and will not be subjected to the provisions of the law on Public accounting, nor to the law of Government contracts on the wise and the control of the accounting department of the State.

Article 2. The principal duties of the M.T.A. Institute are as follows:

To search for mines and quarries suitable to be taken with a view to increase the output of mines and quarries being exploited, to carry out all surveying operations, technical and geological surveys, chemical analyses, scientific tests, to draw up maps, plans, drawings, sections, schemes, technical reports, estimated output accounts and in general, to do all such technical and scientific work, to train Turkish engineers, technicians, foremen and specialized workmen forwork in the mines and in the mining industry.

Article 3. In Addition to the work mentioned in Art. 2 above, the Institute may, on instruction received from the Ministry of Economy, carry out other scientific and geological researches, analyses and tests and draw up maps.

Article 4. The M.T.A. Institute may, with the permission of the Ministry of Economy, have any part of the work mentioned in Art. 2 done by other persons.

Article 5. The M.T.A. Institute may carry out the work mentioned in Article 2, against payment for Government departments, establishments attached to the Government and other persons and corporations, excepting the Ministry of Economy. Work to be done on the spot such as surveying work and mapping, may only be done with the permission of the Ministry of Economy.

The M.T.A. Institute may also do surveying work free of charge on oil fields and mines for which surveying permits and concessions have been granted and which belong entirely or partly to persons and corporations other than the Government and establishments attached to the Government. In such a case, however, the interested party and the Institute will enter into a contract which will be submitted to the Council of Ministers for approval and according to which a share will be given to the State in the profits which might occur from this work.

Article 6. The M.T.A. Institute may, with the permission of the Ministry of Economy, carry on scientific and geological surveys or map the mines and quarries exploited by persons or corporations in regions possessing mines and quarries and belong entirely or partly to persons or corporations. Corporations or persons whose lands will be surveyed by the Institute are required to facilitate the work of the Institute and to show to the Institute their own installations, maps, plans, sections,

schemes, technical reports and output accounts.

Article 7. The M.T.A. Institute is not required to obtain surveying permits as provided for by the mine laws for surveys to be made for its own account.

When the Ministry of National Economy informs the responsible authorities of any Vilâyet that the M.T.A. Institute will survey the entire territory of the Vilâyet or parts thereof with a view to search for certain ores, no surveying permits will be granted to other persons for the same ores until further notice. However, the rights of persons who have already made an application, before such notification of the Ministry of National Economy to the Vilâyet, will be maintained.

Article 8. When the M.T.A. Institute is carrying on survey work in the region of explored mines or of mines having passed into the hands of the Treasury for any reason whatsoever, the Ministry of Economy may not grant or cede these mines to other persons until the results of such survey work are known.

Article 9. After having carried out survey work for its own account in any region, the M.T.A. Institute will hand the following documents to the Ministry of Economy.

a) Topographic and geologic maps indicating the places where survey has been carried out, the junction point of this place with the ore deposits and the approximate position of the deposits.

b) Projection plans and sections of the work executed and plans, sections and sketches indicating the width and the length of the deposit.

c) A technical report explaining the position and the history of the deposit and, if the mine is considered to be workable, the main lines of the considered method of exploitation.

d) A statement of expenses for the surveying work done.

Article 10. The financial year is also the accounting year of the Institute. The Institute will hand to the Ministry of National Economy before the end of January of each year a report indicating the program of work for the following year, the staff, the value of installations and the approximate account of the credit to be obtained from the General budget for its expenses. The said report will be examined by the Ministry of National Economy and work will be done according to the program approved by the Ministry.

If, as a result of development of business, the M.T.A. Institute finds it necessary to deviate from the yearly program, it will inform the Ministry and act on the instructions to be received from the said Ministry.

Article 11. The revenue of the M.T.A. Institute consists of the following items:

a) Credits included in the Budget of the Ministry of Economy and paid to the Institute.

b) Fees to be collected for work done in accordance with Article 5, and sums collected from the establishments working in the regions explored by the Institute, in order to cover expenses incurred for such survey work.

c) Assistance in cash or in kind given to the Institute and accepted with the permission of the Ministry of National Economy.

d) Interests and income on the assets of the Institute.

e) Sums to be paid to the Treasury by persons working mines and quarries and employing foreign engineers and specialists with a view to train young Turks, and which will be transferred to the Institute by the Treasury. The balance not expended at the end of the year will be carried forward to the following year.

The sums indicated in Paragraph c will be used for training Turkish engineers and specialists, and they must be kept in a separate account.

Article 12. The staff of the Institute, in their relation with the Institute and with the public, will be subjected to the same treatment as the staff of private establishments and they will not come under the provisions of the law on the judgement of Government officials and of the law on Government officials.

The assets of the Institute are State property. Persons who steal or embezzle the said property or commit abuses of any sort will be liable to the same punishment provided for similar offences committed against State property.

Article 13. The M.T.A. Institute will enjoy all rights and privileges as granted to State establishments, national establishments such as the Sumerbank, the Agricultural Bank and the Real Estate and Orphans' Bank as well as all privileges and exemptions granted to first

class mines in accordance with the provisions of the Law on Encouragement and Industry.

Article 14. The accounts of the M.T.A. Institute will be checked by a committee of auditors composed of two members appointed respectively by the Ministers of Finance and National Economy at the beginning of each year. The auditors will be chosen among persons who are conversant with the bookkeeping methods of trade and industry. Their fee will be fixed each year by the General Committee. The auditors will check the assets and the operations of the Institute, draw up a quarterly report on the operations of the Institute and send copies thereof to the Ministry of National Economy and Finance. A third copy of the said report will be attached to the yearly report to be handed to the General Committee.

Government officials possessing the same qualifications may also be appointed auditors provided that they are paid the same fee. Auditors may be reelected.

Article 15. The Ministry of Economy may, at any time, control all the operations and the accounts of the Institute.

Article 16. The M.T.A. Institute is required to hand in to the Ministry of Economy within the three months following the end of the acting year the balance-sheet of the preceding year accompanied by a report on the operations of the said year. The Ministry of Economy will send these documents together with the yearly report of the auditors and its own report of the Presidency of the Council of Ministers, within two months of their receipt, in order to be presented to the approval

of the General Committee.

Article 17. The General Committee of the M.T.A. Institute will consist of three delegates to be chosen by the Presidency of the Council of Ministers and the members of the Commissions of the Budget, of National Economy and of the Department of Accounts of the National Assembly.

Article 18. The General Committee will examine the balance-sheet and the yearly report of the Institute, the yearly report of the auditors and the report of the Ministry of Economy which will be sent by the President of the Grand National Assembly to whom they have been sent by the Presidency of the Council of Ministers, and will approve or reject the balance-sheet of the Institute and the reports.

Article 19. The M.T.A. Institute is composed of mining survey and operations divided into as many sections as necessary, of a scientific department containing analysis and testing laboratories, geological-mineralogical-paleontological and topographical sections and an administrative department comprising the accounting sections.

Article 20. The Institute is managed by a General Manager appointed on the proposal of the Ministry of Economy by decree of the Council of Ministers approved by the President of the Republic.

Article 21. The General Manager is assisted by an assistant general manager, a sufficient number of head of departments, specialists, engineers and other employees.

The assistant general manager, and the heads of

departments are proposed by the General Manager and appointed by the Ministry of Economy. The other specialists, engineers and employees, are appointed directly by the General Manager.

Article 22. The assistant general manager, the specialists, engineers, technicians and foremen of the Institute may be foreigners with the permission of the Ministry of Economy.

Article 23. Internal regulations will be drawn up by the Ministry of Economy and approved by the Council of Ministers within the year following the coming into force of the present law, and will establish the management and control methods of the Institute, the duties and powers of the General Manager and of the auditors, and the internal organization and method of management of the Institute.

Article 24. (Sub. Paragraph 12 of Paragraph C) of Article 1 of Law No. 2450, the Commission of mining surveys indicated on list No. 1 of the same law and the provisions of Law No. 2189 as to the survey and exploitation of oil and of gold are hereby repealed.

The assets and liabilities of the Administration of survey and exploitation of oil and gold are transferred to the Institute.

Provisional Article 1. The period between the coming into force of the present law and the end of the first accounting year 1935 will be the first accounting year of the Institute. The program of work for the first year shall be drawn up and approved within two months of the coming into force of the present law.

Provisional Article 2. The cession and transfer of the rights, assets and liabilities of the administration of survey and exploitation of oil and gold will be done within two months of the coming into force of the present law.

The staff of the said administration will continue to work until the formalities of transfer are terminated.

Provisional Article 3. Of the chemical laboratory situated at Zonguldak and the buildings, furniture and materials of the Mining School which has been closed down and those to be chosen by the Ministry of National Economy will be ceded free of charge to the M.T.A. Institute.

Provisional Article 4. The following credits are granted to the M.T.A. Institute, in accordance with Paragraph A) of Article 11 hereof: A sum of 42,000 Liras from the credits provided for in Article 1 of Chapter 664 of the Budget of the Ministry of National Economy for the financial year 1935, a sum of 240,000 Turkish Liras from the credits provided for in Chapter 695 of the same Budget. In addition to the above a credit of 400,000 Liras is granted to the Institute for the accounting year 1935, in a new Chapter to be opened in the Budget of the Ministry of Economy for the financial year 1935, which will be paid in accordance with the provisions of Paragraph A) of Article 11 hereof.

Article 25. The present law comes into force as from the date of its publication.

Article 26. The Council of Ministers is entrusted with the enforcement of the present law.

II. Laws on the Eti-Bank.

Article 1. A bank called the "Eti-bank" has been founded in Ankara. It will be a corporate body and will come under the provisions of the present law and of the Civil Code. This bank may, with the permission of the Ministry of National Economy, open branches in other localities. The Eti-bank will be managed in accordance with commercial methods and will not be subjected to the provisions of the law on Public accounting, nor to the law on Government Contracts or the vice and the control of the accounting department of the State.

Article 2. The Eti-bank has a nominal capital of 20,000,000 Turkish Liras, which may be increased up to double this amount with the proposal of the Government and the decision of the General Committee of the Bank.

Article 3. The Eti-bank may, with the decision of the Council of Ministers, issue bonds with or without interest, with or without prizes, with or without dividend on profits and borrow on long credit terms up to fifteen years. However, the total amount of such issues may not be in excess of 20 million Turkish Liras.

The Minister of Finance is authorized to guarantee the bonds issued or loans raised by the Eti-bank.

Article 4. The Etibank is authorized to carry on the following operations.

a) To purchase and sell mineral ores, materials extracted from the quarries, mineral materials in the raw state, mine materials and to act as an intermediary in such operations.

b) To obtain or take over surveying and preliminary prospection permits, for bitumen, oil and their derivatives and prospecting permits for mines in Turkey or shares in such permits.

c) To acquire or take over mine concessions, permits for the exploitation of mines and permits for the exploitation of quarries in Turkey or shares in such permits and concessions.

d) To obtain and exploit in Turkey concessions for the production, carriage and distribution of electric power stations and electric lines, to distribute electric power, to do any business connected with such enterprises, to install factories producing all sorts of electrical implements, apparatus or machinery and to purchase and sell all electrical material, apparatus and machines.

e) To create independently or with cooperation commercial undertakings for business indicated in Paragraph a), b), c), and d), and to participate in such undertakings created in Turkey and abroad.

f) To carry on all banking operations.

Article 5. The documents handed by the Institute of Mine Surveying and Prospecting to the Ministry of National Economy considered to be worth exploiting after the work carried out in any field will be examined by the said Ministry and will be sent to the Etibank if they are considered to be suitable for exploitation. The Bank is required to secure this exploitation within the main lines indicated in the report of the said Institute and to do everything necessary in this respect. The Bank will settle the expenses incurred by the Institute for

such work, after they have been approved by the Ministry of National Economy.

Article 6. The schemes handed by the "Bureau of Study of Electrification schemes" to the Ministry of National Economy will be examined by the said Ministry and will be sent to the Etibank if their application is considered to be useful. The Bank is required to secure application of such schemes within the main lines in the report of the Bureau of Study of Electrification schemes and to do everything necessary in this respect. The Bank will settle the expenses incurred by the said Bureau of such work after they have been approved by the Ministry of National Economy.

Article 7. The Etibank will transfer the concessions for mines and for the production, carriage and distribution of electricity and the permits of the exploitation of mines and quarries which it may have obtained, to limited liability establishments having a corporate body, founded by, and attached to the Bank.

In addition to this, the Etibank will hand over to such establishments the manufacturing and preparing of electrical material, instruments and machinery and of mine material. Concessions of exploitation and manufacturing trades of the same sort may be grouped and handed over to the same establishments.

The formalities of foundation and the statutory documents of such establishments are exempted from stamp duty. On the proposal of the Government and with the decision of the General Committee of the Bank, these

establishments may also be transformed into companies. In such a case the shareholders must be Turks and the shares must be nominative.

Article 8. The Government will find the necessary capital for the Etibank.

a) by granting the credits provided for in the budget of the Ministry of Economy;

b) by transferring to "Capital a/c", in accordance with Article 16 hereof, the profits made by the Bank as shown in its yearly balance-sheet;

c) by transferring to the Bank the shares of the Government in commercial concerns created with a view to deal with mining, production, carriage and distribution of electrical energy, mineral ores, products of quarries, electrical material, instruments and machinery and material for mines.

d) by transferring to the Bank all concessions for mines, permits for the exploitation of mines and quarries, concessions for the production, carriage and distribution of electrical energy or any shares in such concessions or permits which may have been abandoned, or escheated to the State or passed in any way whatsoever into the hands of the State or of establishments attached to the Government, as well as all rights and benefits relating to such concessions and permits together with the lands and materials which will be evaluated at the time of transfer;

e) by ceding to the Bank the profits or the rentals of mines and quarries abandoned, escheated to or passed into the hands of the Government in any way

whatsoever and leased to and exploited by persons or corporations as well as shares in such profits and rentals;

f) by ceding to the Bank the lands or materials belonging to the Government or to establishments attached to the Government which

Article 9. The cession of rights and shares, the grant of mines and the deliveries in kind mentioned in Paragraph c, d, e, and f of Article 8 will be executed on the demand of the Bank. They will be established by a Committee composed of three members appointed respectively by the Ministry of Economy, the Ministry of Finance and the Bank.

Domianial lands situated outside municipal limits and required by the Bank will be ceded free of charge.

Article 10. The Bank may carry out credit transactions such as granting advances and lending money only to industrial and commercial establishments which have been created by itself or with which it is associated. The form and the amount of these transactions must be approved at the beginning of each year by the Ministry of National Economy.

Article 11. The Etibank will enjoy all permanent rights and concessions granted to national credit institutions as the Sumerbank, the Agricultural Bank and the Real Estate and Orphans' Bank.

Article 12. The Etibank will be managed by a board of directors composed of one chairman and four members including the general manager.

The general manager has two assistants, one mining and the other electrical specialist and a third assistant specialized in banking. The chairman, one director, the general manager and his assistants are designated by the Ministry of Economy and one director by the Ministry of Finance, these appointments being subject to the decision of the President of the Republic. One of the directors is elected by the general Assembly. The chairman and the directors must be specialized in banking, mining and electrical industry.

The chairman of the board and the directors with the exception of the general manager and his assistants are appointed for a period of three years. They are re-eligible. The general manager's assistants may be present at the sitting of the board of directors but they have no right to vote.

Article 13. The accounts of the Etibank will be checked by a commission composed of three controllers to be appointed respectively by the Ministry of Economy, the Ministry of Finance and the General Assembly. They will be appointed for a period of one year, and are re-eligible. Their fee will be fixed, each year, by the General Committee. It is the controller's function to duly examine and check the assets and all the transactions of the bank. They will hand in quarterly reports regarding the operations of the bank to the Ministries of Finance and Economy. One copy of these reports will be attached to the yearly report to be presented to the General Committee.

Article 14. The General Committee of the Etibank is composed of the members of the Budget, Economy and

Accounting commissions of the Turkish Assembly and three delegates of the Presidency of the Council of Ministers.

Article 15. The business year of the Bank is the calendar year. The yearly balance-sheet and statement of profit and loss together with the reports of the board of directors and the committee of controllers will be handed in the first four months of the following year to the Ministry of Economy who will examine and forward them within two months of their receipt to the General Committee, accompanied by the resolution of the Council of Ministers. The balance-sheet and the profit and loss accounts must be approved by the General Assembly, and this approval means the discharge of the board of Directors and staff.

Article 16. Of the yearly net profits of the Bank 10% will be set aside for the reserve fund and, on the balance no more than two per cent may be paid to the board of directors and 3% to the staff, as gratuity, by decision of the General Committee of the Bank.

The balance of the net profits is carried to the Capital account until this latter is brought up to its nominal amount; when the paid capital is equal to its nominal capital the balance of profits will be paid to the Treasury.

Article 17. Regulations are to be drawn up by the Ministry of Economy and approved by the Council of Ministers, not later than two years after the publication of the present law regarding the form of management and control of the bank, the methods to be adopted in banking transactions, the functions and responsibilities of the Board

of Directors, of the general manager and of the controllers, the internal organization of the Bank and the form of cooperating with and controlling the management of commercial companies to be founded by the Bank.

Article 18. The Ministry of Economy may, as and when necessary have the account and transactions of the Etibank checked.

Provisional Article 1. The period running from the coming into force of the present law and the following 3/8 of December will be considered as the first business year of the Bank.

Provisional Article 2. The original staff and the first management of the Etibank will be established by decision of the Council of Ministers on the proposal of the Ministry of Economy.

Provisional Article 3. Shares on profits and rentals indicated in Paragraph E) of Article 8 accumulated in the hands of interested parties and not yet collected by the Treasury will be collected by the Etibank and passed into its capital account.

Provisional Article 4. A credit of 250,000 Liras has been provided for the first accounting year of the Etibank in a new Chapter to be opened in the 1935 Budget of the Ministry of Economy in order to be paid in accordance with Paragraph A) of Article 8 of the present law.

Article 19. The present law comes into force on the date of its publications.

Article 20. The present law will be enforced by the Council of Ministers.

Tab

World Mineral Productions and Turkey

Years	(1) Chromium			(2) Antimony			(3) Zinc		
	World	Turkey	%	World	Turkey	%	World	Turkey	%
1934	273	60	22	23593	35	0.15	1416	7.9	0.56
1935	359	75	21	33015	122	0.37	1564	5.7	0.36
1936	466	80	17	38231	562	1.47	1721	9.6	0.56
1937	583	96	16.4	41572	643	1.55	1870	10.0	0.54
1938	520	107	20	36500	580	1.59	1967	9.6	0.51

Years	(7) Molybdenum			(8) Sulphur			(9) Copper		
	World	Turkey	%	World	Turkey	%	World	Turkey	%
1934	5001	---	---	1993	---	---	1312	---	---
1935	6481	---	---	2200	2	0.09	1527	---	---
1936	6917	---	---	2650	3	0.11	1720	---	---
1937	14620	26	0.18	3400	3	0.09	2340	0.7	0.03
1938	16350	37	0.23	3100	4	0.13	2030	2.2	0.10

(1) "Statistical Year Book" of the League of Nations, Geneva, 1940 pp. 127-158; chromium p. 154; antimony p. 157; zinc p. 158; lead p. 148; cement p. 127; coal p. 137; molybdenum p. 158; sulphur p. 140; copper p. 147; lignite p. 136; manganese p. 149

(1)
XIV

(in metric tons, 000's omitted)

Tabl
key

	(4)			(5)			(6)		
	Lead			Cement			Coal		
%	World	Turkey	%	World	Turkey	%	World	Turkey	%
56	1326	5.6	0.4	57380	180	0.31	1104000	2288	0.2
36	1391	3.9	0.3	62540	193	0.31	1136200	2340	0.2
56	1578	4.7	0.3	75020	193	0.26	1247000	2299	0.2
54	1697	4.8	0.3	80810	226	0.28	1309200	2307	0.2
51	1792	4.9	0.3	84000	287	0.34	122000	2589	0.2

	(10)			(11)		
	Lignite			Manganese		
%	World	Turkey	%	World	Turkey	%
--	177480	53	0.03	1473	---	---
--	188080	73	0.04	1997	7.5	0.31
--	205000	95	0.04	2584	1.2	0.05
--	233150	116	0.05	3020	0.1	0.003
03	240400	146	0.06	---	1.0	---
10						

1940

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