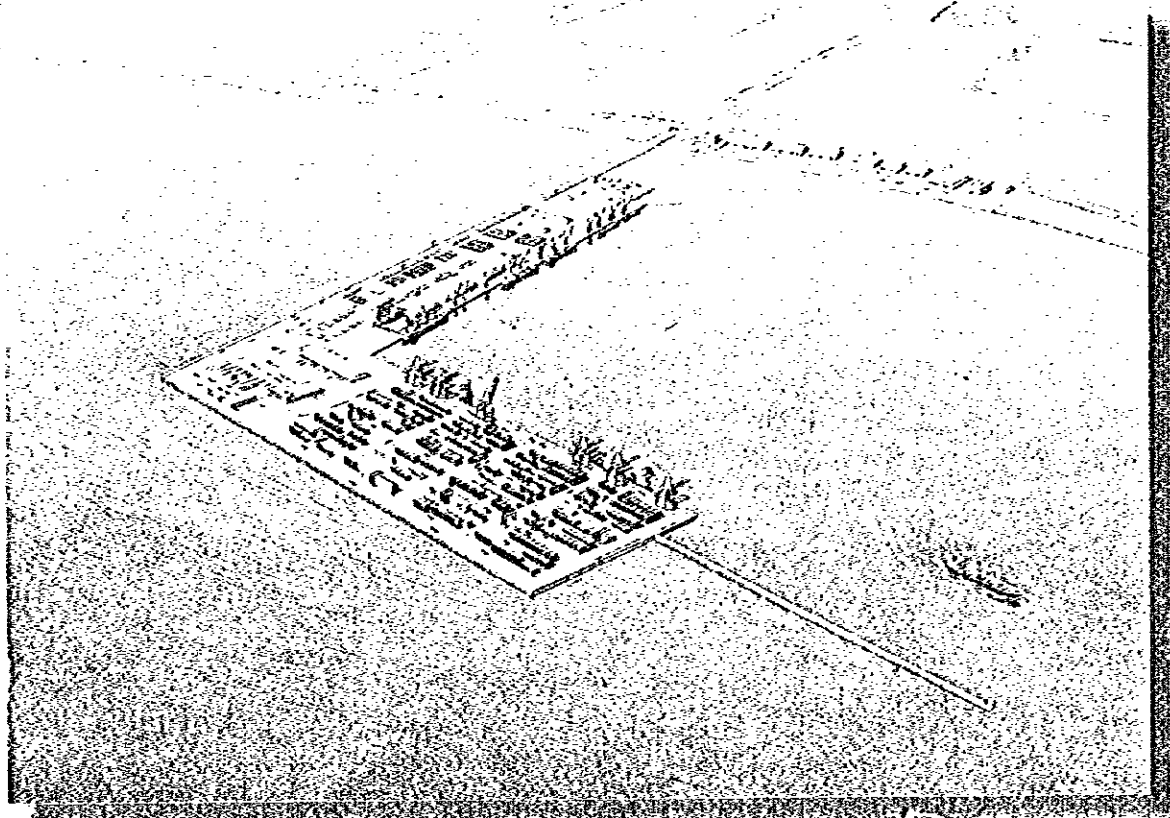


# THE MASTER PLAN STUDY FOR THE PORTS DEVELOPMENT AT THE SEA OF MARMARA IN THE REPUBLIC OF TURKEY



## FINAL REPORT (PART I)

SEPTEMBER 1997

THE OVERSEAS COASTAL AREA DEVELOPMENT INSTITUTE OF JAPAN

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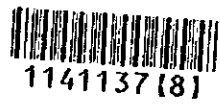
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**Exchange Rate**

**1 US\$ = T.L. 78,400 = 105 ₺**

**( as of June, 1996 )**





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**THE MASTER PLAN STUDY  
FOR  
THE PORTS DEVELOPMENT  
AT  
THE SEA OF MARMARA  
IN  
THE REPUBLIC OF TURKEY**

**FINAL REPORT  
(PART I)**

**SEPTEMBER 1997**

## PREFACE

In response to a request from the Government of Republic of Turkey, the Government of Japan decided to conduct "The Master Plan Study for The Ports Development at Sea of Marmara in The Republic of Turkey" in the Republic of Indonesia and entrusted the study to the Japan International Cooperation Agency (JICA).

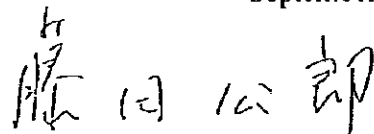
JICA sent to the Turkey a study team headed by Mr. Yoshinori Aoki , Senior Adviser of The Overseas Coastal Area Development Institute of Japan , four times between March 1996 and July 1997.

The team held discussions with the officials concerned of the Government of Turkey, and conducted field surveys at the study area. After the team returned to Japan, through further studies were made and the present report was prepared.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of Turkey for their close cooperation extended to the team.

September 1997

A handwritten signature in black ink, appearing to read 'Fujita Kimio' in a stylized cursive script.

---

Kimio Fujita  
President

Japan International Cooperation Agency

## LETTER OF TRANSMITTAL

September 1997

Mr. Kimio Fujita  
President  
Japan International Cooperation Agency

Sir,

I have the honour to submit the Final Report of the Master Plan Study for the Port Development at the Sea of Marmara in the Republic of Turkey.

The study was commenced in March 1996 by a study team consisting of the Overseas Coastal Area Development Institute of Japan (OCDI) and Nippon Koei, Co. Ltd. and concluded in September 1997 as per the contract with the Japan International Cooperation Agency (JICA).

In line with the scope of work agreed in October 1995 between both governments, the study aims at formulating a master plan for port development on the Sea of Marmara for the coming 20 years culminating in 2015 and formulating a master plan for a new port development in Thrace region for the coming 20 years culminating in 2015 and a short-term development plan for the period of 10 years culminating in 2005.

The study team carried out on-site studies, field surveys on natural and environmental conditions, interviews and discussions with various port-related agencies, and prepared hereby the Final Report of the Study.

I would like to note that the completion of the study is greatly owed to the collaboration with the General Directorate of Construction of Railways, Harbours and Airports, Ministry of Transportation, and other related ministries, government agencies, authorities, shipping lines and agents concerned in Turkey.

I wish to thank the JICA, the Ministry of Foreign Affairs, the Ministry of Transport and the Overseas Economic Cooperation Fund for their assistance and suggestions extended to the study team throughout the study.

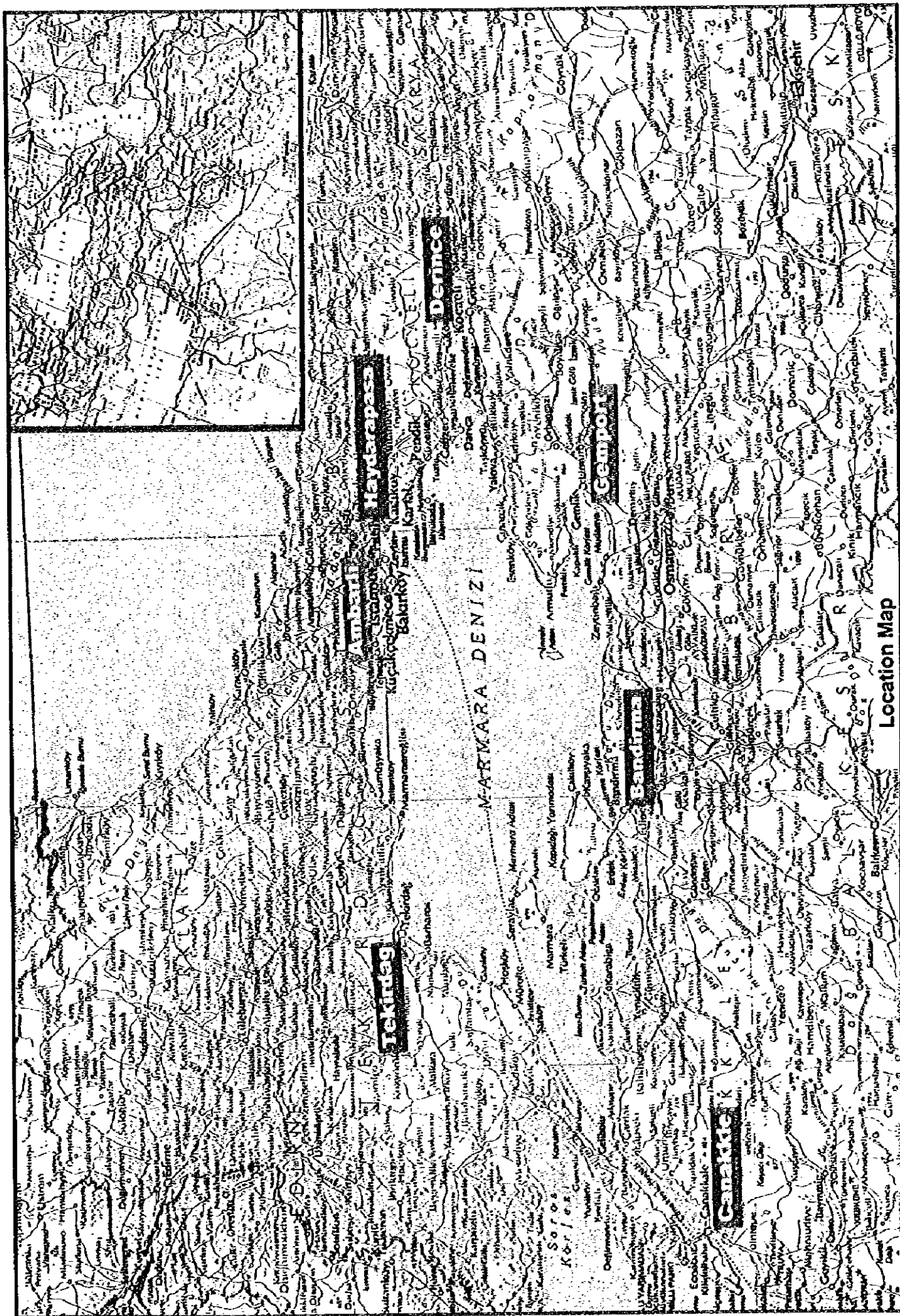
Yours sincerely,



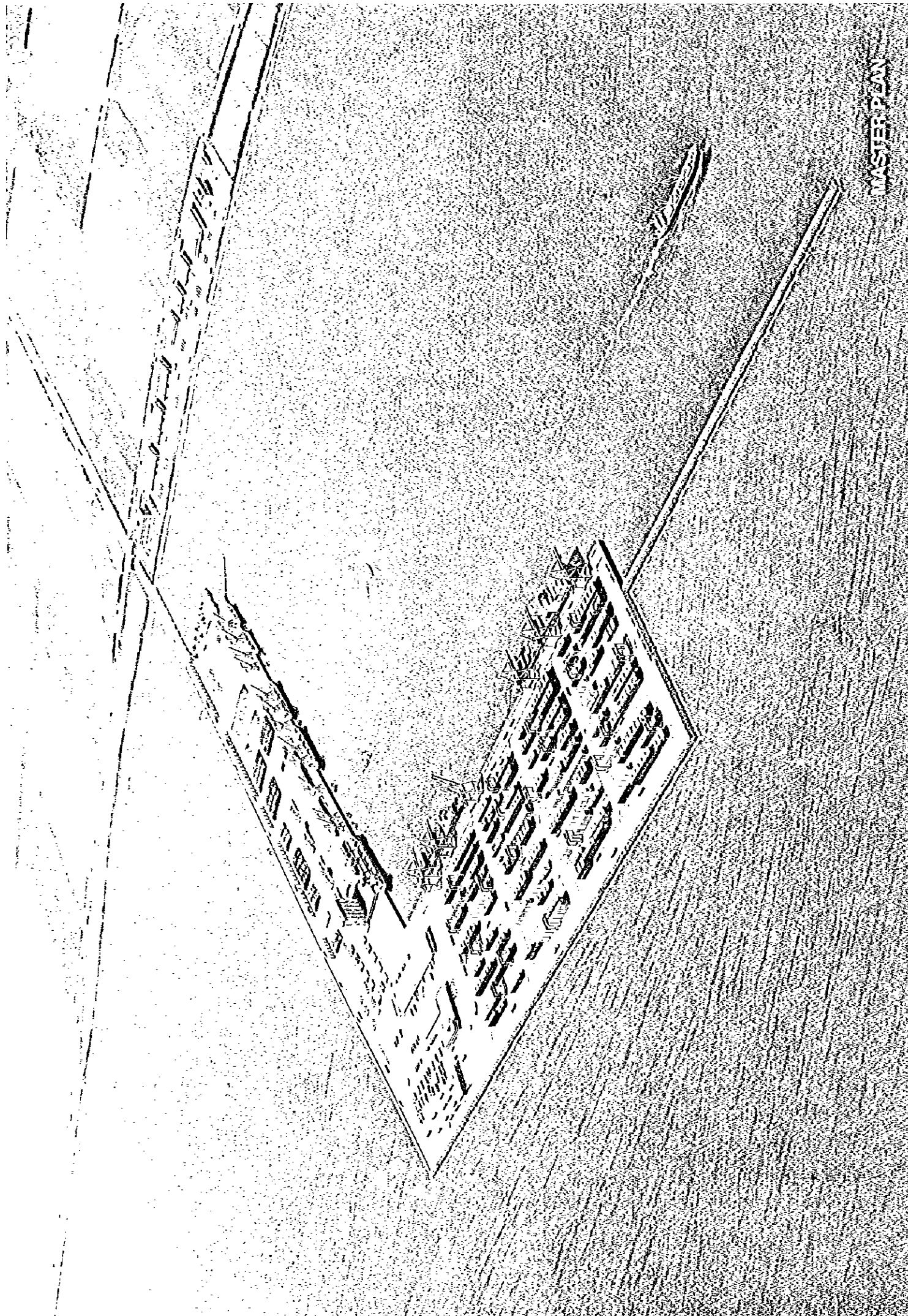
Yoshinori Aoki  
Team Leader for the Master Plan Study  
for the Port Development at the Sea of Marmara

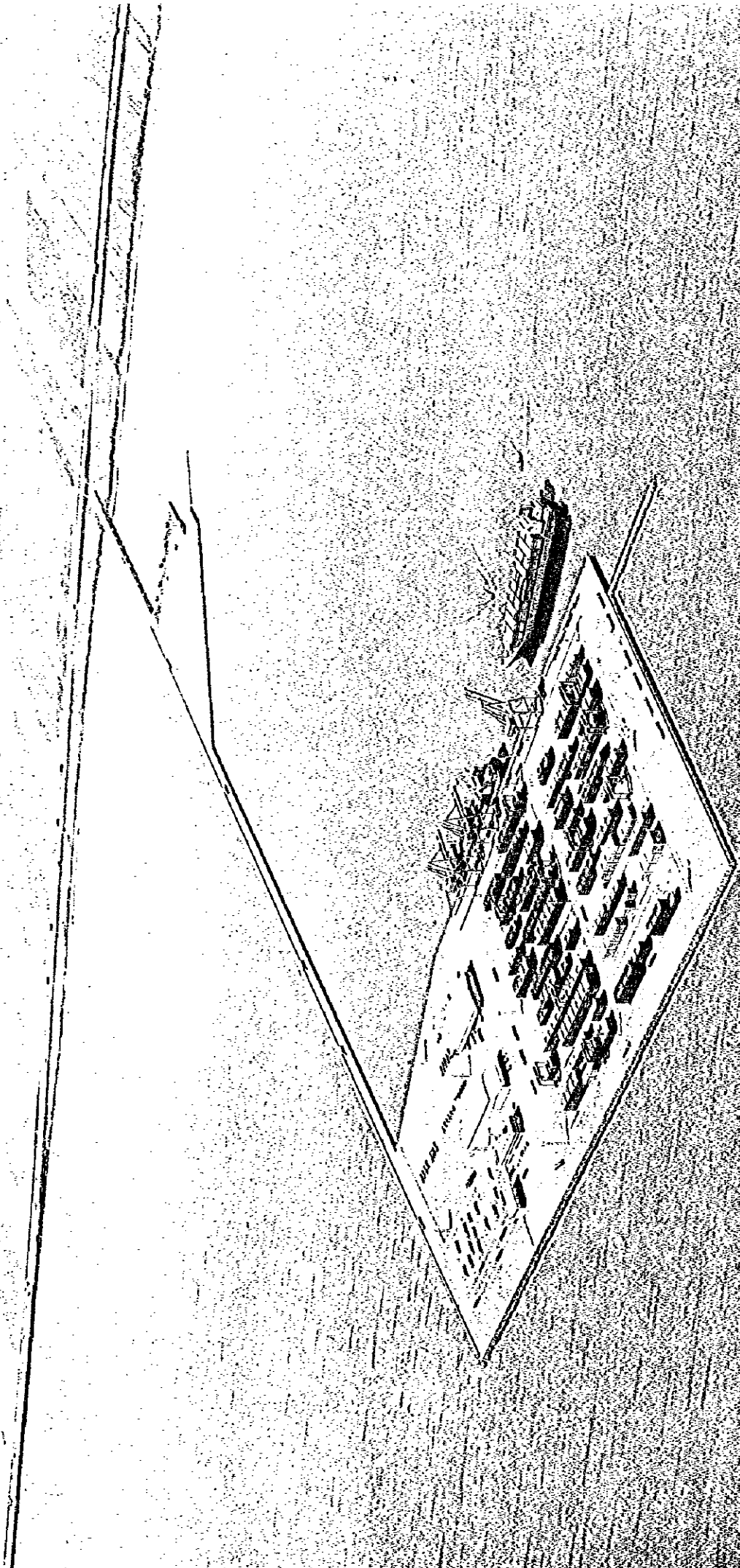






Location Map







## ABBREVIATIONS

<b>ASTM</b>	<b>American Society for Testing and Materials</b>
<b>BOD</b>	<b>Biological Oxygen Demand</b>
<b>BOT</b>	<b>Build, Operation and Transfer</b>
<b>BOTAS</b>	<b>Turkish Pipeline Corporation</b>
<b>CFC</b>	<b>Conversion Factor for Consumption</b>
<b>CFS</b>	<b>Container Freight Station</b>
<b>CIF</b>	<b>Cost, Insurance and Freight</b>
<b>CIS</b>	<b>Commonwealth of Independent States</b>
<b>COD</b>	<b>Chemical Oxygen Demand</b>
<b>CT</b>	<b>Container Terminal</b>
<b>CY</b>	<b>Container Yard</b>
<b>DLH</b>	<b>General Directorate of the Construction of Railway, Harbors and Airports</b>
<b>DWT</b>	<b>Dead Weight Tonnage</b>
<b>EBRD</b>	<b>European Bank for Reconstruction and Development</b>
<b>EC</b>	<b>European Community</b>
<b>EDI</b>	<b>Electronic Data Interchange</b>
<b>EFTA</b>	<b>European Free Trade Association</b>
<b>EIA</b>	<b>Environmental Impact Assessment</b>
<b>EIB</b>	<b>European Investment Bank</b>
<b>EIRR</b>	<b>Economic Internal Rate of Return</b>
<b>EU</b>	<b>European Unions</b>
<b>FCL</b>	<b>Full Container Load</b>
<b>FIRR</b>	<b>Financial Internal Rate of Return</b>
<b>FOB</b>	<b>Free on Board</b>
<b>FS</b>	<b>Feasibility Study</b>
<b>FTZ</b>	<b>Free Trade Zone</b>
<b>FZ</b>	<b>Free Zone</b>
<b>GDP</b>	<b>Gross Domestic Products</b>
<b>GNP</b>	<b>Gross National Rroducts</b>
<b>GRT</b>	<b>Gross registered Tonnage</b>
<b>HWL</b>	<b>High Water Level</b>
<b>IMF</b>	<b>International Monetary Fund</b>
<b>I/L</b>	<b>Import License</b>
<b>ISO</b>	<b>International Standardization Organization</b>

<b>JICA</b>	<b>Japan International Cooperation Agency</b>
<b>L/C</b>	<b>Letter of Credit</b>
<b>LCL</b>	<b>Less than Container Load</b>
<b>LWL</b>	<b>Low Water Level</b>
<b>LNG</b>	<b>Liquefied Natural Gas</b>
<b>MOT</b>	<b>Ministry of Transport</b>
<b>NRT</b>	<b>Net Registered Tonnage</b>
<b>OCDI</b>	<b>Overseas Coastal Area Development Institute of Japan</b>
<b>OECD</b>	<b>Organization for Economic Cooperation Development</b>
<b>OECE</b>	<b>Overseas Economic Cooperation Fund</b>
<b>PETKIM</b>	<b>Turkish Petrochemical Corporation</b>
<b>RO/RO</b>	<b>Roll on and Roll off</b>
<b>SCF</b>	<b>Standard Conversion Factor</b>
<b>SIS</b>	<b>State Institute of Statistics</b>
<b>SPO</b>	<b>State Planning Organization</b>
<b>SPT</b>	<b>Standard Penetration Test</b>
<b>TCDD</b>	<b>Turkish State Railways</b>
<b>TDI</b>	<b>Turkish Maritime Organization</b>
<b>TEU</b>	<b>Twenty Footer Equivalent Unit</b>
<b>TL</b>	<b>Turkish Lira</b>
<b>TMO</b>	<b>Turkish Grain Board</b>
<b>TPAO</b>	<b>Turkish Petroleum Cooperation</b>
<b>UN</b>	<b>United Nation</b>
<b>US</b>	<b>United States of America</b>
<b>WB</b>	<b>World Bank</b>

## **PART I. PRESENT SITUATION**

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## 1. Background

The Government of Turkey implemented the Economic Stabilization Program in 1994 to revitalize the economy. In spite of this Program, high inflation, stagnant domestic demand and the delay of privatization made 1994 a year in which the lowest ever GNP growth rate was recorded.

Since the beginning of 1995, however, foreign currency reserves and export have been increasing, while exchange control and issue of domestic loan bonds have been successful. Moreover, there have been good signs such as the drive to join the Custom Union of Europe, the resumption of financial procurement from foreign countries and positive movement of production. The economy of Turkey has favorably recovered from the negative growth in 1994.

The most important issue of the Turkish economy at present is controlling the high inflation. To solve this issue, the Government of Turkey has put priority on the arrangement of economic infrastructure such as transportation, as well as the reduction of financial deficit and the promotion of privatization of national enterprises.

There are 9 major ports in the Sea of Marmara. The biggest port, Haydarpasa, which is located at the end of the Bosphorus Strait, is always congested with many waiting vessels. Turkey's free market policy has spurred economic development. This has led to an increase in cargo throughput which has exceeded the capacity of port facilities. In addition, the trucks from the port have been causing traffic jams on the bridge crossing the Strait.

Rational port development at the Sea of Marmara is eagerly awaited to relieve the congestion of the port of Haydarpasa as well as to develop a balanced economy in Turkey. A proposal to develop a new port around the Sea of Marmara, where a number of industrial development location plans are in the works, is based on the idea that a portion of cargo currently handled at Haydarpasa would be shifted there.

The present advantages of the development of the new port are as follows;

- ① It will ease the congestion of Port of Haydarpasa.
- ② It will save money and time for transporting goods to the hinterland of ports on the Sea of Marmara compared with the routes via only the

existing ports.

- ③ The new port will greatly contribute to the rationalization of cargo movement in Turkey, especially the delivery of container cargo to and from the hinterland of the ports on the Sea of Marmara, as well as in international transshipment.
- ④ The new port project will offer an advantageous location for industries in the hinterland of the port because it will provide modern port facilities and related infrastructure.
- ⑤ The port project will stimulate industrial investment, and this will expedite the development of the regions.

The port project will provide increased opportunities for employment, better income and higher welfare in the region and throughout the nation.

Accordingly, the government of Turkey officially requested the Japanese government to conduct a Master Plan Study for Port Development on the Sea of Marmara.

In response to the request of the government of the Republic of Turkey, the Japanese Government decided to conduct the study and sent a preliminary JICA Study team. Japan International Cooperation Agency (hereinafter referred to as "JICA") is the official agency responsible for the implementation of the technical cooperation programs of the government of Japan.

The preliminary study team (team leader, Mr. Kunita) held discussions with General Directorate of Railways, Harbours and Airports Construction (hereinafter referred to as "DLH") and other related organizations, and reached an agreement on the Scope of Work of this study in October 1995.

The study team for the ports development at the Sea of Marmara (team leader, Mr. Aoki), dispatched by JICA, arrived in Turkey on 24 March 1996 and collaborated with DLH and other related organizations.

Through discussions and interviews with relevant ministries, government agencies, authorities, corporations and other organizations concerned, as well as DLH, the study team identified bottlenecks of ports at the Sea of Marmara and ports' potential

on maritime transportation in the region between Europe and Asia. Factual data on port activities were also collected and analyzed for in-depth study.

The Progress Report was prepared as the first stage of the study in Turkey and submitted to the Steering Committee for study. The framework for scenarios was carefully discussed and determined in the Committee. The study team left Turkey on 26 June, 1996.

The study team analyzed international transport environment, conducted forecasts of port demand and capacity of ports at the Sea of Marmara, and sought ways to alleviate congestion of the Straits using the collected data. In addition, a supplementary survey was conducted in Japan to formulate the Long Term Marmara Ports Development Plan. Moreover, the Derince Container Terminal Feasibility Study Report was examined and evaluated by the study team. The study team compiled above results as Interim Report (1).

The study team arrived in Turkey on 29 September to start the second survey in Turkey and submitted Interim Report(1) to the Steering Committee. The Long Term Marmara Ports Development Plan was hotly disputed in the committee and finally it was determined that private ports capacity and other three alternative sites for new port construction would be additionally taken into consideration in the study.

Through discussions and interviews with relevant ministries, government agencies, authorities, corporations and other organizations concerned, as well as DLH, and site survey, the study team identified private ports capacity and additional alternative sites. In addition, related data and information for the long term development plan of the new port were collected and analyzed by the study team. Moreover, management and operation of the new port was carefully discussed in the committee. The study team left Turkey on 20 November, 1996.

The study team analyzed natural and environmental conditions in the proposed site and industrial development plan in the Thrace region, conducted microscopic forecasts of the new port in Thrace, and formulated long term development plan of the new port. In addition, initial environmental examination and preliminary economic analysis were conducted. The study team compiled above results as Interim Report(2).

The study team arrived in Turkey in January to start the third survey in Turkey and submitted Interim Report(2) to the steering committee. The long term development plan for a new port in Thrace was eagerly discussed in the committee on 28th of January and finally followings were emphasized; (1)careful evaluation of cargo handling capacity of private ports, (2)importance of port development master plan as a guideline for private port development, (3)finance for the new port, (4)ownership of land for accesses road, (5)improvements of Haydarpasa and Bandirma port.

To implement the feasibility study of the short-term development plan, the study team conducted natural condition and environmental site surveys, formulated the short-term development plan and made a preparation for economic and financial analysis.

The study team conducted the feasibility study of the short term development plan and compiled Draft Final Report in Japan.

The study team arrived in Turkey on 1 July and presented the Draft Final Report to the Steering Committee on 8 July, 1997. The presentation was made mainly about the short term development plan of the new port at Thrace region with its port planning, cargo handling system, structural design, cost estimation, economic and financial analysis and environmental impact assessment. The study team left Turkey on 12 July, 1997.

The study team hereby prepared the Final Report taking the comments from the members of the Steering Committee into consideration.



## 2. Socioeconomic Condition of Turkey

### 2.1 Demography

#### 2.1.1 Population

The first population census was done in 1927 and the second in 1935 and followed by censuses regularly every 5 years. The latest was done in 1990. Historical trend of population and annual increase ratio are shown in Table 2.1.1

**TABLE 2.1.1 Trend of Total Population and Increase Ratio in Turkey**

Year	Male population	Female population	Total	Annual increase rate %
1927	6,563,879	7,084,391	13,648,270	
1935	7,936,770	8,221,248	16,158,018	2.110
1940	8,898,912	8,922,038	17,820,950	1.959
1945	9,446,580	9,343,694	18,790,174	1.059
1950	10,572,557	10,374,631	20,947,188	2.173
1955	12,233,421	11,831,342	24,064,763	2.775
1960	14,163,888	13,590,932	27,754,820	2.853
1965	15,996,964	15,394,457	31,391,421	2.462
1970	18,006,986	17,598,190	35,605,176	2.519
1975	20,744,730	19,602,989	40,347,719	2.500
1980	22,695,362	22,041,595	44,736,957	2.065
1985	25,671,975	24,992,483	50,664,458	2.488
1990	28,607,047	27,865,988	56,473,035	2.171

*Source: SIS 1995 Statistical Yearbook of Turkey*

Population projection conducted by SPO in 1994 is shown in Table 2.1.2 and Figure 2.1.1.

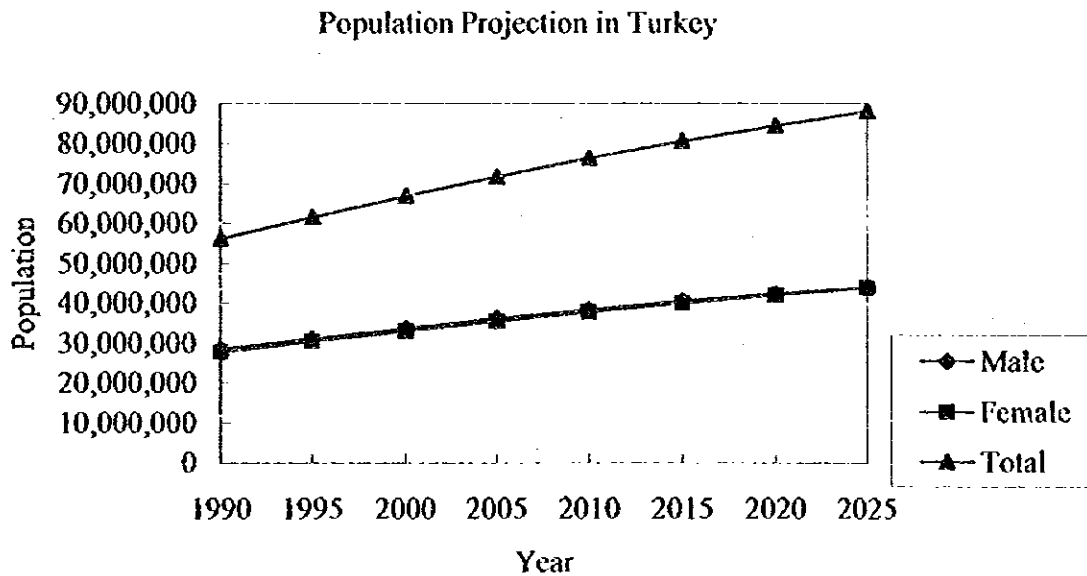
Historical Trend of population and ratio of cities and villages are shown in Table 2.1.3. Urbanization has proceeded along with the progress of the industrialization of Turkish economy. The ratio of city population was 59 % of the total in 1990 ( 53 % in 1985 ). City population has been increasing since 1935.

Population of Marmara region is approx. 13,300,000 in 1990 ( 23.5 % of Turkey population ) ; 11,100,000 in 1985 ( 21.9 % of Turkey population ). Population annual increase rate of Marmara region between 1985 and 1990 is 3.68 %.

**TABLE 2.1.2 Population Projection in Turkey**

Year	Male	Female	Total
1990	28,474,100	27,729,300	56,203,400
1995	31,174,100	30,469,700	61,643,800
2000	33,743,700	33,090,600	66,834,300
2005	36,150,000	35,561,100	71,711,100
2010	38,399,400	37,878,700	76,278,100
2015	40,488,600	40,055,800	80,544,400
2020	42,376,200	42,058,000	84,434,200
2025	44,086,300	43,928,200	88,014,500

Source : SPO

**FIGURE 2.1.1 Population Projection in Turkey****TABLE 2.1.3 Trend of Population Ratio City and Village**

Year	City population	ratio %	Village population	ratio %
1945	4,687,102	24.94	14,103,072	75.06
1950	5,244,337	25.04	15,702,851	74.96
1955	6,927,343	28.79	17,137,420	71.21
1960	8,859,731	31.92	18,895,089	68.08
1965	10,805,817	34.42	20,585,604	65.58
1970	13,691,101	38.45	21,914,075	61.55
1975	16,869,068	41.81	23,478,651	58.19
1980	19,645,007	43.91	25,091,950	56.09
1985	26,865,757	53.03	23,798,701	46.97
1990	33,326,351	59.01	23,146,684	40.99

Source : SIS 1995 Statistical Yearbook of Turkey

Total population in 1985 and 1990 and annual increase ratio of population between 1985 and 1990 in Marmara Region are shown in Table 2.1.4.

**TABLE 2.1.4 Marmara Region Total Population and Annual Increase Ratio**

Year	1985	1990	Annual increase ratio %
Marmara Region	11,097,514	13,295,607	3.680
Balikesir	910,282	973,314	1.339
Bilecik	160,909	175,526	1.739
Bursa	1,324,015	1,603,137	3.826
Canakkale	417,121	432,263	0.713
Edirne	389,638	404,599	0.754
Istanbul	5,842,985	7,309,190	4.478
Kirklareli	297,098	309,512	0.819
Kocaeli	742,245	936,163	4.642
Sakarya	610,500	683,061	2.246
Tekirdag	402,721	468,842	3.040
Turkey total	50,664,458	56,473,035	2.171

Source : SIS Statistical Yearbook of Turkey 1995

## 2.1.2 Labour Force

In Turkey the age of 12 years and older is counted as the potential labor force. Historical trend of unemployment rate and number of civilian labor force are shown in Table

2.1.5.

Labor force participation rate is 50.4 % in 1994 and 53.9 % in 1991. The percentage of labor force in agriculture sector is 47.4 % in 1995 ( 54.8 % in 1980 ), in industry sector is 15.4 % ( 13.8 % in 1980 ) and in service sector is 37.2 % ( 31.3 % in 1980 ). Percent of labor force of industry and service has been decreasing , the other hand percent of agriculture has been increasing since 1993. Trend of unemployment ratio is decreasing in 1980 - 1995 from 11.6 % to 7.2 %.

**TABLE 2.1.5 Trend of Unemployment Rate and Number of Civilian Work Force**

Year	1980	1990	1991	1992	1993	1994	1995
Population 12 years over			40,709,000	41,810,000	42,988,000	43,951,000	
Civilian labor force		21,562,000	21,238,000	21,703,000	21,628,000	22,136,000	22,446,000
Participation rate %			52.2	51.9	50.3	50.4	
Unemployment rate %	11.6	7.5	8.4	8.0	8.0	7.9	7.2
Percent of labor force in							
Agriculture %	54.8	46.9	47.6	44.7	43.4	44.2	47.4
Industry %	13.8	16.2	15.5	17.8	16.5	15.9	15.4
Services %	31.3	36.9	36.9	37.5	40.1	39.9	37.2

Source: SPO Main Economic Indicators, Statistical Yearbook of Turkey 1995

## 2.2 Economy

### 2.2.1 Gross Domestic Product

#### (1) GDP

The Turkey 's GDP amounted to around 98,000 billion Turkish Lira (T.L) in 1995 at constant prices of the year 1987, had recorded annual growth rate of GDP 5.07 % on average in the period of 1980 - 1995. Annual growth rate had dropped by trade deficit in 1989 and 1994, by influence of gulf crisis in 1991. Historical trend of GDP at 1987 constant prices and at current prices are shown in Table 2.2.1

TABLE 2.2.1 Trend of Turkish GDP at Current Price and at 1987 Constant Price

Year	At Current Price		At 1987 Constant Price	
	million T.L.	increase ratio %	million T.L.	increase ratio %
1987	74,721,925		74,721,925	
1988	129,224,505	72.9	76,306,292	2.1
1989	227,324,008	75.9	76,498,311	0.3
1990	393,060,171	72.9	83,578,465	9.3
1991	630,116,961	60.3	84,352,830	0.9
1992	1,093,368,045	73.5	89,400,745	6.0
1993	1,981,867,096	81.3	96,590,370	8.0
1994	3,868,429,187	95.2	91,320,722	-5.5
1995	7,554,757,775	95.3	98,023,152	7.3

Source : SIS

Marmara Region includes provinces of Balıkesir, Bilecik, Bursa, Canakkale, Edirne, Istanbul, Kırklareli, Sakarya and Tekirdag.

GDP share of Marmara region has been within the range of 35 % - 36.9 % of Turkey since 1987. Historical trend of GDP by region at 1987 constant prices are shown in Table 2.2.2

Historical trend of GDP by Marmara region provinces are shown in Table 2.2.3. GDP share proportion of each provinces in Marmara Region has been stabilized since 1987. Istanbul province creates more than 20 % of GDP of Turkey by the 10 % of population . Each province of Kocaeli and Bursa produce approx. 4.0 % and 4.5 % of GDP respectively. Total GDP of these 3 provinces is more than 80 % of Marmara Region.

#### (2) GDP by Sector

As to GDP by sector, service sector in 1994 accounts for 57.8 % of the total GDP, followed by the industry sector 26.8 % and the agriculture sector recorded 15.4 %.

In 1980, each industry's share were 54.8 %, 20.7 % and 24.4 % and average annual growth

rates in 1980 - 1994 are 4.29 %, 5.71 % and 1.06 % respectively. Historical trend of GDP by sector of industry at 1987 constant prices are shown in Table 2.2.4

### (3) Expenditure on GDP

In the expenditure on the GDP in 1995, the final private consumption and the final government consumption accounts for around 77 % of the total expenditure, followed by the gross fixed capital formation ( 26.7 % ). Share of final private consumption has been within the range of 67 % - 70 % since 1987. Share of gross fixed capital formation has been within the range of 24 % - 27 % since 1987 except for the year 1993. Historical trend of expenditures on GDP at 1987 constant prices is shown in Table 2.2.5

### (4) GDP per capita

Historical trend of GDP per capita of Turkey is shown in Table 2.2.6  
Among the 10 provinces of Marmara region, there is more than 3 times difference between the highest and the lowest of average per capita of GDP. The highest one is Kocaeli province which has the most developed industrial area along the Izmit bay. Sakarya province GDP per capita is lowest in Marmara Region since 1993.

Historical trend of Marmara Region province GDP per capita at 1987 constant prices are shown in Table 2.2.7 The average of per capita of GDP is approx. 2,170,000 T.L. in 1994 at 1987 constant price (2,230,000 T.L. in 1987 ). The average value of per capita of GDP of Marmara Region is slightly lower than the average of Istanbul province, but the difference ratio is recently narrowed sharply depending to the industrialization and urbanization of the other provinces. Balıkesir, Edirne and Sakarya provinces GDP per capita are lower than the average of Turkey.

### 2.2.2 Prices

Historical trend of wholesale price indices (1987 = 100) and Marmara Region consumer price indices (1987 = 100) are shown in Table 2.2.8 and Table 2.2.9.  
In consumer prices, the gap of price indices between Turkey food and Turkey total are increasing to 16 % in 1994 ( 10 % in 1989 ). The difference of prices indices between Turkey total and Marmara region is within 2 % constantly .

TABLE 2.2.2 GDP by Region at 1987 price

Year Region	1987			1988			1989			1990			million T.L
	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %	
Mediterranean	8,937,413	12.0		9,059,445	11.9	1.4	9,509,748	12.4	5.0	10,342,631	12.4	8.8	
Eastern anatolia	3,054,348	4.1		3,120,142	4.1	2.2	3,052,585	4.0	-2.2	3,322,031	4.0	8.8	
Aegean	12,391,698	16.6		12,822,644	16.8	3.5	12,700,451	16.6	-1.0	13,771,052	16.5	8.4	
South eastern anatolia	3,905,909	5.2		4,245,425	5.6	8.7	3,986,868	5.2	-6.1	4,513,964	5.4	13.2	
Central anatolia	12,635,749	16.9		12,839,141	16.8	1.6	11,982,823	15.7	-6.7	13,531,113	16.2	12.9	
Black sea	7,449,851	10.0		7,515,115	9.8	0.9	7,743,724	10.1	3.0	8,128,834	9.7	5.0	
Marmara	26,346,957	35.3		26,704,380	35.0	1.4	27,522,113	36.0	3.1	29,968,840	35.9	8.9	
Total	74,721,925	100.1		76,306,292	100.0	2.1	76,498,312	100.0	0.3	83,578,465	100.1	9.3	

Year Region	1991			1992			1993			1994			million T.L
	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %	
Mediterranean	10,032,040	11.9	-3.0	10,666,801	11.9	6.3	11,685,237	12.1	9.5	11,176,264	12.2	-4.4	
Eastern anatolia	3,229,687	3.8	-2.8	3,374,391	3.8	4.5	3,499,536	3.6	3.7	3,480,573	3.8	-0.5	
Aegean	13,674,372	16.2	-0.7	14,631,135	16.4	7.0	15,985,881	16.6	9.3	15,743,187	17.2	-1.5	
South eastern anatolia	4,827,952	5.7	7.0	5,001,910	5.6	3.6	5,353,235	5.5	7.0	4,934,307	5.4	-7.8	
Central anatolia	13,954,169	16.5	3.1	14,483,804	16.2	3.8	15,487,763	16.0	6.9	14,850,570	16.3	-4.1	
Black sea	8,156,575	9.7	0.3	8,742,594	9.8	7.2	8,896,011	9.2	1.8	8,601,680	9.4	-3.3	
Marmara	30,478,035	36.1	1.7	32,500,112	36.4	6.6	35,682,707	36.9	9.8	32,534,142	35.6	-8.8	
Total	84,352,830	99.9	0.9	89,400,747	100.1	6.0	96,590,370	99.9	8.0	91,320,723	99.9	-5.5	

Source: SIS News Bulletin 1996 April

TABLE 2.2.3 GDP of Marmara Region at 1987 constant prices

year Province	1987			1988			1989			1990			million T.L
	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %	
Balıkesir	1,321,554	1.8		1,417,254	1.9	7.2	1,437,854	1.9	1.5	1,452,161	1.7	1.0	
Bilecik	320,831	0.4		333,778	0.4	4.0	328,822	0.4	-1.5	377,583	0.5	14.8	
Bursa	2,778,974	3.7		2,986,366	3.9	7.5	3,089,816	4.0	3.5	3,322,877	4.0	7.5	
Canakkare	651,760	0.9		733,124	1.0	12.5	791,729	1.0	8.0	798,999	1.0	0.9	
Edirne	468,254	0.6		455,599	0.6	-2.7	495,668	0.6	8.8	498,877	0.6	0.6	
İstanbul	15,464,563	20.7		15,444,495	20.2	-0.1	15,818,132	20.7	2.4	17,333,961	20.7	9.6	
Kırklareli	534,574	0.7		543,336	0.7	1.6	707,402	0.9	30.2	790,880	0.9	11.8	
Kocaeli	3,335,170	4.5		3,260,148	4.3	-2.2	3,238,460	4.2	-0.7	3,643,984	4.4	12.5	
Sakarya	729,663	1.0		771,025	1.0	5.7	780,869	1.0	1.3	856,483	1.0	9.7	
Tekirdag	741,615	1.0		759,257	1.0	2.4	833,361	1.1	9.8	893,035	1.1	7.2	
Total	263,469,58	35.3		26,704,382	35		27,522,113	35.8		29,968,840	35.9		

year Province	1991			1992			1993			1994		
	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %	Value	share %	growth rate %
Balıkesir	1,449,597	1.7	-0.2	1,489,052	1.7	2.7	1,543,496	1.6	3.7	1,564,822	1.7	1.4
Bilecik	379,455	0.4	0.5	412,831	0.5	8.8	458,404	0.5	11.0	463,701	0.5	1.2
Bursa	3,400,361	4.0	2.3	3,778,433	4.2	11.1	4,149,800	4.3	9.8	3,680,919	4.0	-11.3
Canakkare	826,846	1.0	3.5	888,125	1.0	7.4	892,899	0.9	0.5	879,830	1.0	-1.5
Edirne	536,358	0.6	7.5	524,467	0.6	-2.2	556,352	0.6	6.1	544,805	0.6	-2.1
İstanbul	17,572,946	20.8	1.4	18,761,393	21.0	6.8	20,706,501	21.4	10.4	18,518,939	20.3	-10.6
Kırklareli	747,197	0.9	-5.5	782,821	0.9	4.8	724,253	0.7	-7.5	719,959	0.8	-0.6
Kocaeli	3,771,598	4.5	3.5	3,917,987	4.4	3.9	4,635,378	4.8	18.3	4,230,165	4.6	-8.7
Sakarya	862,164	1.0	0.7	924,336	1.0	7.2	952,086	1.0	3.0	943,518	1.0	-0.9
Tekirdag	931,513	1.1	4.3	1,020,666	1.1	9.6	1,063,537	1.1	4.2	987,485	1.1	-7.2
Total	30,478,035	36		32,500,111	36.4		35,682,706	36.9		32,534,143	35.6	

Source: SIS News Bulletin 1996 April

TABLE 2.2.4 GDP by Sector of Industry at 1987 Constant Prices

Year	G.D.P		Agriculture			Industry			Service		
	Total value	growth rate %	value	share %	growth rate %	value	share %	growth rate %	value	share %	growth rate %
	million T.L		million T.L			million T.L			million T.L		
1980	50,295,990	-2.4	12,287,950	24.4	1.3	10,424,177	20.7	-3.6	27,583,862	54.8	-3.6
1981	52,738,670	4.9	12,066,632	22.9	-1.8	11,453,641	21.7	9.9	29,218,397	55.4	5.9
1982	54,617,937	3.6	12,463,165	22.8	3.3	12,032,940	22.0	5.1	30,121,831	55.2	3.1
1983	57,332,998	5.0	12,359,288	21.6	-0.8	12,837,432	22.4	6.7	32,136,276	56.1	6.7
1984	61,181,163	6.7	12,438,263	20.3	0.6	14,187,936	23.2	10.5	34,554,964	56.5	7.5
1985	63,776,134	4.2	12,396,027	19.4	-0.3	15,116,140	23.7	6.5	36,263,965	56.9	4.9
1986	68,248,100	7.0	12,836,767	18.8	3.6	17,099,707	25.1	13.1	38,311,625	56.1	5.6
1987	74,721,925	9.5	12,882,700	17.2	0.4	18,679,588	25.0	9.2	43,159,636	57.8	12.7
1988	76,306,292	2.1	13,911,021	18.2	8.0	19,073,839	25.0	2.1	43,321,431	56.8	0.4
1989	76,498,311	0.3	12,845,404	16.8	-7.7	20,007,946	26.2	4.9	43,644,961	57.1	0.7
1990	83,578,464	9.3	13,746,286	16.4	7.0	21,872,602	26.2	9.3	47,959,574	57.4	9.9
1991	84,352,830	0.9	13,700,671	16.2	-0.3	22,497,638	26.7	2.9	48,154,519	57.1	0.4
1992	89,400,744	6.0	14,248,581	15.9	4.0	23,910,621	26.7	6.3	51,241,541	57.3	6.4
1993	96,590,369	8.0	14,129,023	14.6	-0.8	25,897,717	26.8	8.3	56,563,628	58.6	10.4
1994	91,350,722	-5.5	14,042,324	15.4	-0.6	24,458,180	26.8	-5.6	52,820,216	57.8	-6.6

Source: SIS



TABLE 2.2.5 Expenditures on GDP at 1987 constant prices

Year Items	1987			1988			1989		
	million T.L.	share %	growth rate %	million T.L.	share %	growth rate %	million T.L.	share %	growth rate %
Final private consumption	51,018,541	68.6	4.9	51,637,994	67.8	1.2	51,104,992	66.9	-1.0
Final government consumption	5,845,368	7.9	14.3	5,782,952	7.6	-1.1	5,830,576	7.6	0.8
Gross fixed capital formation	18,491,096	24.8	16.5	18,298,606	24.0	-1.0	18,700,871	24.5	2.2
private	10,781,248	14.5	27.5	12,144,113	15.9	12.6	12,352,598	16.2	1.7
public	7,709,848	10.3	4.0	6,154,493	8.1	-20.2	6,348,273	8.3	3.1
Net external Transaction	-1,626,360	-2.2		1,116,630	1.5		207,534	0.3	
export	11,642,299	15.6	22.9	13,786,391	18.1	18.4	13,750,637	18.0	-0.3
import	-13,268,659	17.8	16.1	-12,669,761	16.6	-4.5	-13,543,103	17.7	6.9
Change in stock	687,452	0.9		-692,888			520,136	0.7	
Statistical discrepancy	305,828			162,998			134,202		
TOTAL	74,721,925			76,306,292		2.1	76,498,311		0.3

Year Items	1990			1991			1992		
	million T.L.	share %	growth rate %	million T.L.	share %	growth rate %	million T.L.	share %	growth rate %
Final private consumption	57,803,275	69.3	13.1	58,913,358	70.1	1.9	60,862,947	68.9	3.3
Final government consumption	6,297,068	7.6	8.0	6,579,321	7.8	4.5	6,828,598	7.7	3.8
Gross fixed capital formation	21,670,018	26.0	15.9	21,934,795	26.1	1.2	22,882,252	25.9	4.3
private	14,754,571	17.7	19.4	14,892,058	17.7	0.9	15,536,123	17.6	4.3
public	6,915,447	8.3	8.9	7,042,737	8.4	1.8	7,346,129	8.3	4.3
Net external Transaction	-3,912,593	-4.7		-2,447,536	-2.9		-2,702,111	-3.1	
export	14,101,599	16.9	2.6	14,626,840	17.4	3.7	16,235,952	18.4	11.0
import	-18,014,192	21.6	33.0	-17,074,376	20.3	-5.2	-18,938,063	21.5	10.9
Change in stock	1,512,941	1.8		-939,037	-1.1		402,050	0.5	
Statistical discrepancy	207,756			311,929			1,127,009		
TOTAL	83,578,465		9.3	84,352,830		0.9	89,400,745		6.0

Year Items	1993			1994			1995		
	million T.L.	share %	growth rate %	million T.L.	share %	growth rate %	million T.L.	share %	growth rate %
Final private consumption	65,999,747	69.5	8.4	62,493,892	69.0	-5.3	67,219,111	69.0	7.6
Final government consumption	7,199,166	7.6	5.4	6,947,329	7.7	-3.5	7,410,707	7.6	6.7
Gross fixed capital formation	28,573,810	30.1	24.9	24,026,855	26.5	-15.9	26,028,162	26.7	8.3
private	20,974,380	22.1	35.0	19,069,992	21.0	-9.1	21,908,584	22.5	14.9
public	7,599,430	8.0	3.4	4,956,863	5.5	-34.8	4,119,578	4.2	-16.9
Net external Transaction	-8,251,539	-8.7		47,924	0.0		-4,625,668	-4.7	
export	17,483,652	18.4	7.7	20,137,735	22.2	15.2	21,496,831	22.1	6.7
import	-25,715,191	27.1	35.8	-20,089,811	22.2	-21.9	-26,122,499	26.8	30.0
Change in stock	1,486,000	1.6		-2,925,010	-3.2		1,371,560	1.4	
Statistical discrepancy	1,563,186			729,732			619,280		
TOTAL	96,590,570		8.0	91,320,722		-5.5	98,023,152		7.3

Source: S/S 1995 Statistical yearbook of Turkey

**TABLE 2.2.6 Trend of GDP per Capita of Turkey**

year	Mid - year Population	In Current Price		At 1987 Constant Price	
		T.L.	Growth Rate	T.L.	Growth Rate
1968	33,585,000	4,868.7		935,687.0	
1969	34,442,000	5,306.3	9.0	949,641.4	1.5
1970	35,321,000	5,820.0	9.7	955,950.6	0.7
1971	36,215,000	7,043.0	21.0	984,252.4	3.0
1972	37,132,000	8,210.2	16.6	1,031,230.2	4.8
1973	38,072,000	10,072.3	22.7	1,038,579.0	0.7
1974	39,036,000	13,321.3	32.3	1,069,599.2	3.0
1975	40,078,000	16,820.4	26.3	1,116,529.5	4.4
1976	40,915,000	20,944.7	24.5	1,208,102.2	8.2
1977	41,768,000	26,251.8	25.3	1,223,744.3	1.3
1978	42,640,000	38,283.1	45.8	1,216,735.1	-0.6
1979	43,530,000	65,485.6	71.1	1,184,419.2	-2.7
1980	44,438,000	117,706.0	79.7	1,131,823.9	-4.4
1981	45,540,000	173,496.4	47.4	1,158,073.6	2.3
1982	46,688,000	224,729.8	29.5	1,169,849.6	1.0
1983	47,864,000	290,527.6	29.3	1,197,831.3	2.4
1984	49,070,000	448,280.9	54.3	1,246,824.0	4.1
1985	50,306,000	697,640.1	55.6	1,267,764.0	1.7
1986	51,433,000	993,123.6	42.2	1,326,932.1	4.7
1987	52,561,000	1,421,623.0	43.1	1,421,623.0	7.1
1988	53,715,000	2,405,743.4	69.2	1,420,577.0	-0.1
1989	54,893,000	4,141,220.3	72.1	1,393,589.5	-1.9
1990	56,098,000	7,006,669.9	69.2	1,489,865.3	6.9
1991	57,326,000	10,991,818.0	56.9	1,471,458.5	-1.2
1992	58,584,000	18,663,253.5	69.8	1,526,026.6	3.7
1993	59,869,000	31,955,607.0	71.2	1,604,995.8	5.2

TABLE 2.2.7 Trend of GDP Per Capita of Marmara Region at 1987 Constant Prices

Year	1987			1988			1989			1990		
	Province	Population	T.L	Population	T.L	Population	T.L	Population	T.L	Population	T.L	T.L
	Balıkesir	931,824	1,418,244	944,459	1,500,599	957,020	1,502,428	971,128	1,495,334			
	Bilecik	165,836	1,934,625	168,758	1,977,850	171,688	1,915,230	174,915	2,158,666			
	Bursa	1,413,634	1,965,837	1,468,881	2,033,089	1,525,895	2,024,920	1,587,868	2,092,666			
	Canakkare	422,491	1,542,659	425,548	1,722,776	428,518	1,847,598	432,147	1,848,674			
	Edirne	394,924	1,185,680	397,943	1,144,885	400,881	1,236,447	404,438	1,233,507			
	Istanbul	6,307,726	2,451,686	6,597,108	2,341,100	6,898,000	2,293,148	7,226,689	2,398,603			
	Kirklareli	301,464	1,773,277	303,963	1,787,507	306,407	2,308,700	309,325	2,556,793			
	Kocaeli	803,515	4,150,724	841,761	3,873,009	881,602	3,673,381	925,189	3,938,637			
	Sakarya	634,620	1,149,764	649,086	1,187,863	663,712	1,176,518	679,641	1,260,199			
	Tekirdag	424,300	1,747,856	437,433	1,735,710	450,857	1,848,393	465,409	1,918,817			
	Total	11,800,334		12,234,940		12,684,580		13,176,749				
	Average		2,232,730		2,182,632		2,169,730		2,274,365			

Year	1991			1992			1993			1994		
	Province	Population	T.L	Population	T.L	Population	T.L	Population	T.L	Population	T.L	T.L
	Balıkesir	981,781	1,476,497	992,011	1,501,043	1,001,818	1,540,695	1,011,222	1,547,456			
	Bilecik	177,568	2,136,956	180,171	2,291,329	182,727	2,508,682	185,238	2,503,271			
	Bursa	1,644,843	2,067,286	1,702,636	2,219,167	1,761,241	2,356,180	1,820,678	2,021,730			
	Canakkare	433,989	1,905,223	435,530	2,039,183	436,773	2,044,309	437,728	2,009,993			
	Edirne	406,339	1,319,977	407,966	1,285,565	409,320	1,359,210	410,412	1,327,459			
	Istanbul	7,529,997	2,333,725	7,838,714	2,393,427	8,152,791	2,539,805	8,472,317	2,185,818			
	Kirklareli	310,996	2,402,593	312,467	2,505,291	313,738	2,308,464	314,816	2,286,702			
	Kocaeli	965,414	3,906,716	1,006,386	3,893,125	1,048,096	4,422,665	1,090,557	3,878,903			
	Sakarya	693,489	1,243,227	707,283	1,306,883	721,025	1,320,462	734,727	1,284,175			
	Tekirdag	478,583	1,946,398	491,863	2,075,102	505,246	2,104,988	518,740	1,903,622			
	Total	13,622,999		14,075,027		14,532,775		14,996,435				
	Average		2,237,248		2,309,062		2,455,326		2,169,454			

Source: SIS News Bulletin 1996 April

**TABLE 2.2.8 Wholesale Price Indices (1987 = 100)**

Year	1987	1988	1989	1990	1991	1992	1993	1994	1995
General	100.0	170.5	279.5	425.7	661.4	1,072.0	1,698.0	3,747.0	7,064.7
Public	100.0	170.3	279.7	438.1	706.9	1,167.8	1,804.5	4,015.5	7,107.4
Private	100.0	170.5	279.5	421.0	643.9	1,035.2	1,657.1	3,643.9	7,048.5
Agricultural	100.0	144.1	247.3	421.9	636.4	1,035.6	1,680.2	3,323.6	7,267.3
Total mining	100.0	164.1	270.7	402.5	657.1	1,053.3	1,663.7	3,873.1	6,841.5
Total Manufacture.	100.0	181.5	293.3	430.8	669.1	1,068.4	1,672.9	3,837.8	7,040.6
Pub. Manufacture.	100.0	177.3	289.6	456.3	724.7	1,155.0	1,740.7	3,950.5	7,255.2
Pri. Manufacture.	100.0	183.2	294.8	420.3	646.4	1,032.9	1,645.1	3,791.7	6,952.8
Energy	100.0	140.9	238.3	373.1	653.2	1,291.6	2,167.0	4,383.0	6,478.8

Source: SPO Main Economic Indicators 1996

**TABLE 2.2.9 Marmara Region Consumer Prices Indices (1987 = 100)**

Year	1987	1988	1989	1990	1991	1992	1993	1994	1995
Turkey total	100.0	173.7	283.6	454.6	754.4	1,283.1	2,131.2	4,395.9	8,511.7
Turkey food	100.0	183.2	310.1	509.4	851.3	1,455.8	2,380.8	5,002.8	9,868.6
Marmara Region	100.0	174.5	282.2	449.9	747.4	1,257.2	2,079.8	4,284.5	8,346.1

Source : SPO Main Economic Indicators 1996

## 2.3 Foreign Trade

### 2.3.1 Long-Term Trend of Foreign Trade

Needless to say, the demand of ports is much concerned with the volume of foreign trade. Table 2.3.1 shows long-term exports and imports trends of the Republic of Turkey. Export is measured with f.o.b. ( free on board ) and Import is based on c.i.f ( cost, insurance, and freight ). The changing rates to previous year of both items are extremely fracturing according to the inner and/or outer economic situations of that time.

**TABLE 2.3.1 Foreign Trade (customs basis)**

	Export(fob)		Import(cif)	
	Mil.US\$	change %	Mil.US\$	change %
1973	1317		2049	
1974	1538	16.8	3720	81.6
1975	1401	-8.9	4739	27.4
1976	1960	39.9	4993	5.4
1977	1753	-10.6	5796	16.1
1978	2288	30.5	4599	-20.7
1979	2291	0.1	5353	16.4
1980	2911	27.1	7538	40.8
1981	4703	61.6	8932	18.5
1982	5685	20.9	8923	-0.1
1983	5728	0.8	9236	3.5
1984	7134	24.5	10757	16.5
1985	7957	11.5	11342	5.4
1986	7458	-6.3	11107	-2.1
1987	10189	36.6	14157	27.5
1988	11618	14.0	14320	1.2
1989	11626	0.1	15797	10.3
1990	12959	11.5	22302	41.2
1991	13593	4.9	21047	-5.6
1992	14715	8.3	22871	8.7
1993	15345	4.3	29428	28.7
1994	18106	18.0	23270	-20.9
1995*	19241	21.8	31390	52.6

(Source) WB, World Tables 1995 <1973-89> Turkish Economy Statistics and Analysis 1996 <1990-95\*>

(Note) Figures of 1995\* mean amounts from Jan. to Nov. and change rates to previous same period.

The calculations of trend growth of trade were attempted and the results were 15.2% in Exports and 11.2% in Imports, as shown below.

$$\log(\text{Exports}) = 1.152 * \text{Year} \quad (R^2 = 0.93 \quad \text{Data; 1973-1992})$$

$$\log(\text{Imports}) = 1.112 * \text{Year} \quad (R^2 = 0.97 \quad \text{Data; 1973-1992})$$

$$\log(\text{Export+Import}) = 1.125 * \text{Year} \quad (R^2 = 0.97 \quad \text{Data; 1973-1992})$$

The above mentioned analysis is dealing with the value of trade ( nominal basis ). However, much interest should be put into the volume of trade ( real basis ). Because, the latter concept of statistics is nearer to cargo handling volume than the other. Table 2.3.2 shows export / import prices ( 1987 = 100 ), and Export / Import volumes deflated with the each price indices.

**TABLE 2.3.2 Foreign Trade (volume basis)**  
Mil. US\$ at 1987 price

	Export(fob)		Import(cif)	
	Price	Volume	Price	Volume
1973	53.8	2448	34.9	3809
1974	73.1	2104	51.7	5089
1975	69.0	2030	57.7	6868
1976	71.7	2734	58.3	6964
1977	78.6	2230	64.3	7374
1978	83.3	2747	73.3	5521
1979	98.0	2338	86.5	5462
1980	116.0	2509	132.5	6498
1981	102.8	4575	128.3	8689
1982	96.2	5910	125.9	9275
1983	84.9	6747	113.1	10879
1984	86.3	8267	102.6	12465
1985	82.6	9633	100.3	13731
1986	89.2	8361	90.1	12452
1987	100.0	10189	100.0	14157
1988	108.4	10718	105.0	13210
1989	117.2	9920	109.8	13479
1990	136.6	9487	120.6	16327
1991	131.2	10361	115.0	16042
1992	130.2	11302	117.1	17566

(Source) Price: WB, World Tables 1995

Using these data of Table 2.3.2, the calculations of trend growth were tried again. The obtained trends of growth were 11.3% in Exports, 7.5% in Imports and 8.7% in sum of them, as shown below.

$$\begin{aligned}\log (N\_Exports) &= 1.113 * Year & (R^2 = 0.81 \text{ Data; 1973-1992}) \\ \log (N\_Imports) &= 1.075 * Year & (R^2 = 0.91 \text{ Data; 1973-1992}) \\ \log (N\_Export+N\_Import) &= 1.087 * Year & (R^2 = 0.90 \text{ Data; 1973-1992})\end{aligned}$$

### 2.3.2 Foreign Trade by Country

An overview of Turkish international trade is presented in Table 2.3.3 by country group.

**TABLE 2.3.3 Foreign trade of Turkey by Country Group**

	1989	1990	1991	1992	1993	1994
<b>Import Value (Million US\$)</b>						
OECD	9913	14225	14071	15423	19974	15312
EC	6463	9898	9896	10657	13873	10915
EFTA	493	597	541	791	727	563
Other	2957	3730	3634	3976	5373	3834
Non-OECD	5879	8077	6976	7448	9455	7958
Europe	1535	2244	2031	2226	3355	2590
African	1048	1337	750	808	716	861
American	444	552	439	414	545	357
M.Eastern	2302	2705	2483	2648	2798	2529
Other Asia	550	1237	1271	1320	1958	1291
Other	0.4	1.6	1.6	31	82	330
<b>TOTAL</b>	<b>15792</b>	<b>22302</b>	<b>21047</b>	<b>22871</b>	<b>29428</b>	<b>23270</b>
ref.OBEC	344	364	416	1744	2766	2166
<b>Export Value (Million US\$)</b>						
OECD	7175	8810	8857	9346	9067	10740
EC	5657	7177	7347	7934	7597	8635
EFTA	102	333	286	298	248	277
Other	1317	1300	1224	1114	1221	1828
Non-OECD	4450	4149	4737	5369	6279	7366
Europe	1165	1158	1284	1475	1956	2437
African	767	748	810	782	706	843
American	44	45	72	68	91	134
M.Eastern	1977	1603	1787	1908	1888	2050
Other Asia	492	568	758	1048	1486	1505
Other	5	27	26	88	152	397
<b>TOTAL</b>	<b>11625</b>	<b>12959</b>	<b>13593</b>	<b>14715</b>	<b>15345</b>	<b>18106</b>
ref.OBEC	208	239	346	1003	1041	1637
<b>Share of Import (%)</b>						
OECD	62.8	63.8	66.9	67.4	67.9	65.8
EC	40.9	44.4	47.0	46.6	47.1	46.9
EFTA	3.1	2.7	2.6	3.5	2.5	2.4

( continue TABLE 2.3.3 )

	1989	1990	1991	1992	1993	1994
Other	18.7	16.7	17.3	17.4	18.3	16.5
Non-OECD	37.2	36.2	33.1	32.6	32.1	34.2
Europe	9.7	10.1	9.6	9.7	11.4	11.1
African	6.6	6.0	3.6	3.5	2.4	3.7
American	2.8	2.5	2.1	1.8	1.9	1.5
M.Eastern	14.6	12.1	11.8	11.6	9.5	10.9
Other Asia	3.5	5.5	6.0	5.8	6.7	5.5
Other	0.0	0.0	0.0	0.1	0.3	1.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
refOBEC	2.2	1.6	2.0	7.6	9.4	9.3

Share of Export  
(%)

OECD	61.7	68.0	65.2	63.5	59.1	59.3
EC	48.7	55.4	54.0	53.9	49.5	47.7
EFTA	0.9	2.6	2.1	2.0	1.6	1.5
Other	11.3	10.0	9.0	7.6	8.0	10.1
Non-OECD	38.3	32.0	34.8	36.5	40.9	40.7
Europe	10.0	8.9	9.4	10.0	12.7	13.5
African	6.6	5.8	6.0	5.3	4.6	4.7
American	0.4	0.3	0.5	0.5	0.6	0.7
M.Eastern	17.0	12.4	13.1	13.0	12.3	11.3
Other Asia	4.2	4.4	5.6	7.1	9.7	8.3
Other	0.0	0.2	0.2	0.6	1.0	2.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
refOBEC	1.8	1.8	2.5	6.8	6.8	9.0

(Source) Foreign Trade Statistics 1994

It is important to recognize which directions the more weight of trade exists to. In the international trade of the Republic of Turkey, the closest relationship exists between OECD-European countries. OECD-Europe had the share of 49.3% in Turkish Imports and 49.2% of Turkish Exports went toward to OECD-Europe in 1994. However, the share of Turkish Exports toward these countries is seen to decline recently compared with 58.0% in 1990.

Non-OECD-Europe ( NOE ) is important too for the Turkish foreign trades. NOE is mainly consisted of Eastern European countries. The shares of Turkish Exports and Imports are increasing in these few years, especially in Exports to 13.5% in 1994.

Moreover, the growth of Turkish Exports to Other-Asia has to been noticed. Table 2.3.3 shows the data of OBEC ( Organization of Black Sea Economic Cooperation ) for the reference. The rapid increase of its shares in Turkish Exports and Imports is noticed again.



TABLE 2.3.4 Foreign Trade by main countries

	IMPORT				EXPORT				Million US\$, %	
	1992	1993	1994	% of total in cumulative 1994	1992	1993	1994	% of total in cumulative 1994		
Total	22871	29436	23270	100.0	14715	15345	18106	100.0		
1 Germany	3754	4533	3646	15.7	3660	3654	3034	21.7		21.7
2 U.S.A.	2601	3351	2429	10.4	865	986	1520	8.4		30.1
3 Italy	1919	2558	2009	8.6	943	750	1034	5.7		35.8
4 France	1351	1952	1458	6.3	796	835	889	4.9		40.7
5 Saudi Arabia	1665	1500	1220	5.3	809	771	851	4.7		45.4
6 U.K.	1187	1546	1170	5.0	442	505	820	4.5		50.0
7 Russia	1041	1542	1045	4.5	500	517	621	3.4		53.4
8 Japan	1113	1621	968	4.2	486	652	609	3.4		56.8
9 Netherl.	698	870	740	3.2	290	294	371	2.0		58.8
10 Iran	366	667	692	3.0	147	512	355	2.0		60.8
11 Ukraine	91	473	535	2.3	216	239	254	1.4		62.2
12 Belux	551	683	532	2.3	455	200	250	1.4		63.6
13 Switzerland	688	650	473	2.0	229	227	249	1.4		64.9
14 Spain	320	431	380	1.6	186	235	249	1.4		66.3
15 U.A.E	354	313	338	1.5	223	216	239	1.3		67.6
16 Libya	445	131	320	1.4	108	82	238	1.3		68.9
17 So.Koria	373	621	285	1.2	48	118	236	1.3		70.2
18 Sweden	222	428	283	1.2	298	195	232	1.3		71.5
19 China	172	255	258	1.1	173	191	195	1.1		72.6
20 Rumania	256	301	229	1.0	162	158	187	1.0		73.6
21 Australia	114	206	226	1.0	98	121	185	1.0		74.7
22 Austria	282	319	211	0.9	239	311	181	1.0		75.7
23 Brazil	199	251	206	0.9	247	246	179	1.0		76.6
24 Taiwan	200	288	198	0.9	90	80	178	1.0		77.6
25 Bulgaria	225	243	196	0.8	173	152	175	1.0		78.6
26 Malaysia	141	160	170	0.7	146	118	169	0.9		79.5
27 So.Africa	170	209	161	0.7	99	100	161	0.9		80.4
28 Finland	103	178	142	0.6	62	76	158	0.9		81.3
29 Canada	105	141	137	0.6	212	160	141	0.8		82.1
30 Israel	97	122	126	0.5	72	86	134	0.7		82.8
31 Egypt	69	105	124	0.5	102	68	132	0.7		83.5
32 India	100	152	111	0.5	19	68	132	0.7		84.3
33 Greece	88	120	105	0.5	149	154	150	0.7		85.0
34 Czech Rep.		221	95	0.4	66	104	128	0.7		85.7

(Source) Foreign Trade Statistics 1994

Main countries in the Turkish international trades are shown in the Table 2.3.4. Each last column of Import and Export indicates the accumulated share. In the side of Import, only 6 countries, Germany, U.S.A., Italy, France, Saudi Arabia and U.K., take moreover 50%. Similarly in Export, 6 countries, Germany, U.S.A., Italy, U.K., France and Russia, have cumulative share of over 50%.

### 2.3.3 Foreign Trade by Commodity

#### (1) Exports Commodity

According to the Yearbook of World Trade 1995 published by United Nations, 83.1% of total exports value of Turkey is made by manufacturing goods. Table 2.3.5 shows the composition of exports by industrial origin.

**TABLE 2.3.5 Export by Industrial origin percentage of total export value**

code	category	1987	1988	1989	1990	1991	1992	1993
1	Agriculture	17.8	19.6	18.1	18.1	19.5	14.9	15.4
2	Mining quarry	2.7	3.1	3.6	2.7	2.2	1.9	1.6
3	Manufacturing	79.6	77.3	78.2	79.2	78.4	83.2	83.1
3-1	Food Bev. & Tobacco	8.7	7	6.7	6.3	8.4	8.7	8.6
3-2	Textiles	34.2	32.5	35.5	37.1	36.6	39.8	39.2
3-3	Wood & products	0.3	0.3	0.3	0.3	0.3	0.3	0.3
3-4	Paper & products	0.9	0.7	0.5	0.5	0.5	0.5	0.5
3-5	Chemicals	10.7	12.7	13	9.9	8.7	8.3	7.4
3-6	Non metal min.	2.1	2	2.4	3	3.4	3.5	3
3-7	Basic metal	8.8	13.5	13	13.3	10.9	10.4	12.9
3-8	Metal manuf.	13.4	8.5	6.7	8.6	9.4	11.4	11
3-9	Other manuf.	0.4	0.1	0.1	0.2	0.3	0.2	0.3

(Source) UN, Yearbook of world trade 1995

In the exported manufacturing goods, textiles have a big share and are increasing year by year to 39.2% in 1993. Export shares of Basic metals and metal products are 12.9% and 11.9%. Chemicals are decreasing recently to 7.4% in 1993.

Table 2.3.6 shows the contributions of main chapters in export growth from average 1989/90 to 1992/93. Exports values of almost of chapters are fracturing year by year. So in this analysis, average value of two years is used. Result shows that "Articles of apparel and clothing accessories knitted" made the largest positive contribution in the export increase between these period. The second contribution was made by "Iron and steel", and the third was "Electrical machinery and equipment". On the other hand, "Cotton, cotton yarn and cotton fabric", "Articles of leather" and so on contributed negatively. Exports value of each chapter is shown in Table 2.3.7. Above mentioned analysis was

formulated following.

$$\text{Contribution (I)} = \text{Growth\_Rate(I)} * \text{Share(I)} / \text{Growth\_Rate(Total\_Export)}$$

I : each chapter

Growth\_Rate : average changing rate from 1989/90 to 1992/93

Share : share of total export in 1989/90

**TABLE 2.3.6 Commodities mainly effecting on the change of export**

code	chapter	average value		contri- bution
		89-90	92-93	
61	Articles of apparel and clothing accessories knitted	1318878	2443911	41.1
72	Iron and steel	1216927	1494411	10.1
84	Electrical machinery and equipment	371773	636165	9.7
62	Articles of apparel and clothing accessories not knitted	1087007	1307951	8.1
10	Cereals	47231	263124	7.9
17	Sugars and sugar confectionery	17171.5	188370	6.3
83	Boilers, machinery, mechanical appliances	206411	346690	5.1
40	Rubber and articles thereof	91289.5	200057	4.0
86	Vehicles other than railway	138106	237656	3.6
57	Carpets and other floor coverings	187041	276977	3.3
63	Other made-up textile articles	244038	331303	3.2
15	Animal or vegetable fats and oils	206018	287397	3.0
88	Ships, boats and floating structures	38697	105798	2.5
11	Products of the milling industry	66715.5	131946	2.4
31	Fertilizers	86263	27500.5	-2.1
26	Ores, slag and ash	108745	43223	-2.4
27	Mineral fuels and oils	277481	204817	-2.7
24	Tobacco and manufactured Tobacco	461086	386821	-2.7
29	Organic chemicals	194205	86390	-3.9
42	Articles of leather	600179	480638	-4.4
52	Cotton, cotton yarn and cotton fabric	568639	373717	-7.1

(Source) Foreign Trade Statistics 1994

TABLE 2.3.7 Exports by chapter

	Thousand US\$					
	1989	1990	1991	1992	1993	1994
General Total	11624692	12939288	13593462	14714629	15315067	18105872
1 Live animals	252932	203977	204008	127937	283501	223357
2 Meat	32975	21002	12230	21749	18838	35041
3 Fish	54975	55605	47396	46212	10478	45922
4 Dairy produce, eggs, honey	19551	14783	13750	15820	15927	21605
5 Other products of animal origin	36037	40827	37213	37950	35900	36187
6 Live trees and other plants	10704	15526	15600	15186	14163	13347
7 Vegetables	292064	394823	427493	356873	351176	339203
8 Fruit	686904	995414	901720	825856	917100	1113881
9 Coffee, tea, spices	69742	74670	35295	44078	90078	46991
10 Cereals	83281	11181	280043	415503	110745	151201
11 Products of the milling industry	65705	67726	164390	147336	116556	156986
12 Oil seeds and oleaginous fruits	37729	44327	40393	36187	43500	50823
13 Vegetable saps and extracts	9226	6388	3419	1411	782	2032
14 Vegetable plaiting materials	17569	17022	10527	6644	5896	7938
15 Animal or vegetable fats and oils	209980	202055	279763	305789	269005	274217
16 Preparations of meat, of fish and of molluscs	16091	16946	17267	18480	21431	29462
17 Sugars and sugar confectionery	11733	22610	62098	167868	208872	309979
18 Cocoa and cocoa preparations	6042	5870	13045	27494	38073	48967
19 Preparations of cereals, flour, starch or milk	30224	28213	58374	64635	84480	119851
20 Preparations of vegetables and fruits	301639	301113	383332	349365	362471	495467
21 Miscellaneous edible preparations	15960	9995	16125	33360	38312	50842
22 Beverages, spirits and vinegar	13027	13177	21088	24181	24770	48566
23 Waste from the food industries, animal fodder	9024	4899	6292	2013	2643	7836
24 Tobacco and manufactured tobacco	479813	442359	572024	332617	441025	423674
25 Salt, sulphur, earth, plastering materials, lime	312198	318776	338060	356554	291087	360065
26 Ores, slag and ash	133370	84119	55868	51161	35285	54776
27 Mineral fuels and oils	258614	296347	290358	233127	176507	243850
28 Inorganic chemicals	142887	129854	114073	132812	123761	150029
29 Organic chemicals	219121	169289	110796	98314	74466	113010
30 Pharmaceutical products	112774	70397	48832	44718	74441	73091
31 Fertilizers	101359	71167	54621	38160	16841	31987
32 Tanning or dyeing extracts	31496	24540	23765	26287	29285	34483
33 Essential oils and resinoids	13507	11983	14048	13613	11826	16646
34 Soap	121806	107241	61718	83498	79684	103830
35 Albuminoid substances	2375	1795	927	1984	2419	5322
36 Explosives	2051	3228	3332	2054	2373	3357
37 Photographic or cinematographic goods	341	881	904	849	884	350
38 Miscellaneous chemical products	19554	20869	28323	39414	46158	37552
39 Plastics and articles thereof	219053	173790	176020	190472	198782	237207
40 Rubber and articles thereof	106214	76365	155098	202419	197695	245234
41 Raw hides, skins and leather	8641	4926	7276	10375	13485	25937
42 Articles of leather	524276	676082	548325	488524	472752	442366
43 Furskins and artificial fur	63741	61070	54661	63225	59366	63693
44 Wood and articles of wood	33305	35453	28166	31613	28565	61961
45 Cork and articles of cork	62	119	14	65	79	20
46 Manufactures of plaiting materials	17	47	9	27	35	48
47 Pulp of cellulosic material and waste of paper	1092	247	281	87	134	1762
48 Paper and paperboard	48475	60159	59595	60546	50829	108096
49 Printed books, newspapers etc	3702	6007	7707	9473	17657	11612
50 Silk	702	472	262	1401	435	1296
51 Wool	34301	19016	22238	29983	35928	52749
52 Cotton, cotton yarn and cotton fabric	549500	587778	528033	341050	406384	601459
53 Paper yarn and woven fabrics	2511	1027	1853	659	47	2816
54 Man-made filaments	144519	156993	189704	196719	200674	265314
55 Man-made staple fibers	289188	274704	266661	337308	313094	439977
56 Wadding, felt and nonwovens	2904	5067	5513	7411	11882	9131
57 Carpets and other floor coverings	171704	202378	189022	262406	291548	252527
58 Special woven fabrics	41487	41186	42077	51329	61716	108618
59 Impregnated, coated etc fabrics	85814	86043	62994	67924	72405	70283

(cont.)TABLE 2.3.7 Exports by chapter

	1989	1990	1991	1992	1993	1994
60 Knitted or crocheted fabrics	45559	49584	66002	71898	63095	140588
61 Articles of apparel and clothing accessories knitted	1194165	1443591	1777891	2418073	2469749	2580711
62 Articles of apparel and clothing accessories not knitted	986944	1187069	1129891	1244555	1371347	1527155
63 Other made-up textile articles	220386	267689	311561	345792	316814	382174
64 Footwear and the like	48503	36800	59164	83302	94235	159454
65 Headgear and parts thereof	192	369	309	1229	1298	1858
66 Umbrellas, walking-sticks, whips	809	758	1069	1012	613	478
67 Feathers and down and artificial flowers	245	281	333	71	133	217
68 Articles of stone, plaster or similar materials	31918	42198	43640	53402	56244	69205
69 Ceramic products	54967	65238	99363	108478	120659	147949
70 Glass and glassware	162766	205888	197137	217344	188747	199089
71 Pearls, precious stones, coin	3759	7181	9343	16768	27338	51373
72 Iron and steel	1104901	1328953	1168875	1275807	1713015	2019382
73 Articles of iron and steel	240851	280277	275698	237143	278329	332360
74 Copper and articles thereof	146297	131008	107814	92285	95651	100004
75 Nickel and articles thereof	5	796	4	158	215	202
76 Aluminium and articles thereof	107127	116945	65438	70974	75862	112780
77 Lead and articles thereof	347	288	66	80	71	103
78 Zinc and articles thereof	1	22	35	42	58	485
79 Tin and articles thereof	6	12	63	36	14	41
80 Other base metals, cermets, articles thereof	1817	1001	729	436	483	1599
81 Tools of base metal	13106	15518	9294	12439	14065	14992
82 Miscellaneous articles of base metal	20479	21645	22641	62762	27118	32571
83 Boilers, machinery, mechanical appliances	200881	211941	238872	330583	362796	547987
84 Electrical machinery and equipment	267771	475775	564242	643945	628384	746868
85 Railway or tramway locomotives	519	156	1300	16617	41907	84251
86 Vehicles other than railway	136507	139705	151261	219347	255964	333305
87 Aircraft	42	0	0	3	300	22319
88 Ships, boats and floating structures	12576	64818	91879	136823	74773	53779
89 Optical instruments and apparatus	6311	14515	16648	28411	24129	26155
90 Clocks	1438	1007	409	636	798	2598
91 Musical instruments	596	471	421	577	732	629
92 Arms and ammunition	5361	5100	6084	8004	7147	8832
93 Furniture	31667	37392	47636	63254	81537	96670
94 Toys, games and sports equipment	1630	1818	2523	2736	3645	5291
95 Miscellaneous manufactured articles	9290	10464	11441	13474	13488	15517
96 Works of art and collectors pieces	25	88	68	32	71	228

(Source) Foreign Trade Statistics 1994

## (2) Imports Commodity

Table 2.3.8 shows Imports of Turkey by broad economic category. This table is quoted from U.N. Yearbook of World Trade 1995, similar to the case of Exports.

The largest share of imports is seen in category No.2 / Industrial Supplies, and its share is 37.9% in 1993. The second is Machinery, occupies 24.2% of total Imports. Over 70% of Imports ( excluding fuels ) is concerned with industry. Recently, the share of transport is rapidly increasing, and reached to 15.1% in 1993 from 5.4% in 1987. On the other hand, it is clear that the Import share of fuels is decreasing.

As shown in the case of Export, contribution analysis was tried again concerning with Import. The results of this analysis is presented in Table 2.2.9.

The bigger contributions for the expansion of Import between 1989/90 and 1992/93 are made by the increase of " Boiler, machinery, mechanical appliances " , " Vehicles other than railway " , " Aircraft " and so on.

**TABLE 2.3.8 Imports by broad economic category**  
percentage of total import value

code	category	1987	1988	1989	1990	1991	1992	1993
1	Food & beverage	3.3	2.5	5.5	6.0	3.6	3.7	3.7
1-1	Primary	1.7	0.7	3.2	3.0	1.5	1.5	2.1
1-1-1	For Industry	1.3	0.5	3.1	2.7	1.1	1.1	1.6
1-1-2	For Households	0.4	0.2	0.1	0.3	0.4	0.4	0.4
1-2	Processed	1.6	1.8	2.3	3.0	2.1	2.2	1.6
1-2-1	For Industry	0.6	0.8	1.0	0.7	0.9	0.8	0.8
1-2-2	For Households	1.0	1.0	1.3	2.3	1.2	1.4	0.8
2	Industry Supplies	41.8	42.5	43.5	35.7	37.1	38.0	37.9
2-1	Primary	7.5	7.6	9.0	6.1	6.5	7.0	7.1
2-2	Processed	34.3	34.9	34.6	29.6	30.6	31.0	30.8
3	Fuels	22.2	21.0	20.5	20.6	17.9	16.5	13.3
3-1	Primary	21.2	20.0	19.0	19.0	15.8	15.0	11.7
3-2	Processed	1.0	1.0	1.5	1.5	2.1	1.5	1.5
3-2-1	Motor spirit	0.1	0.1	1.3	1.4			0.3
3-2-2	Other	0.9	0.9	0.2	0.1	2.1	1.5	1.2
4	Machinery	23.6	24.1	20.3	23.6	26.7	24.9	24.2
4-1	Capital equipment	19.7	20.2	16.8	19.6	21.8	20.2	20.1
4-2	Parts	4.0	4.0	3.5	4.0	4.9	4.8	4.2
5	Transport	5.4	6.2	6.3	8.8	8.5	11.3	15.1
5-1	Passenger cars	0.4	0.6	0.5	2.5	1.2	1.6	2.5
5-2	Other	1.3	2.2	2.7	2.5	3.3	4.7	7.9
5-2-1	Industrial	1.3	2.2	2.7	2.4	3.1	4.6	7.8
5-2-2	Non Industrial	0.0	0.0	0.0	0.1	0.2	0.1	0.2
5-3	Parts	3.7	3.4	3.1	3.7	4.0	5.0	4.7
6	Consumer Goods	3.6	3.6	3.9	5.1	5.7	5.2	5.3
6-1	Durable	0.9	0.8	0.9	1.4	1.4	1.5	1.5
6-2	Semi Durable	0.6	0.7	0.8	1.3	1.6	1.7	1.6
6-3	Non Durable	2.1	2.1	2.2	2.4	2.6	2.0	2.2
7	Others	0.0	0.0	0.0	0.1	0.6	0.4	0.5

(Source) UN, Yearbook of world trade 1995

Import value of each chapter is shown in Table 2.3.10.

**TABLE 2.3.9 Commodities mainly effecting on the change of import**

code	chapter	average value		contri- bution
		89-90	92-93	
83	Boilers, machinery, mechanical appliances	2990566	4670845	23.7
86	Vehicles other than railway	732616	1729328	14.0
87	Aircraft	266944	1039501	10.9
84	Electrical machinery and equipment	1379364	1965794	8.3
72	Iron and steel	1776812	2192754	5.9
39	Plastics and articles thereof	446418	764204	4.5
89	Optical instruments and apparatus	397320	620786	3.1
52	Cotton, cotton yarn and cotton fabric	222933	433988	3.0
44	Wood and articles of wood	115656	287616	2.4
29	Organic chemicals	836417	993788	2.2
48	Paper and paperboard	197650	352715	2.2
17	Sugars and sugar confectionery	151453	9069.5	-2.0
10	Cereals	565399	249213	-4.5

(Source) Foreign Trade Statistics 1994

**TABLE 2.3.10 Imports by chapter**

		Thousand US\$					
code	chapter	1989	1990	1991	1992	1993	1994
	General Total	15792143	22302126	21047014	22871055	29428370	23270019
1	Live animals	20804	109300	108047	109155	103201	23353
2	Meat	5428	13975	32628	33115	31144	9766
3	Fish	3201	11607	10397	19244	23204	24753
4	Dairy produce, eggs, honey	8094	18451	20335	29879	28028	19335
5	Other products of animal origin	7433	5245	6307	8401	6684	6212
6	Live trees and other plants	4018	8159	7108	7763	9639	6479
7	Vegetables	6529	35981	19555	24571	39630	11330
8	Fruit	5178	16916	18968	35053	53545	29544
9	Coffee, tea, spices	13214	17112	19203	16687	25134	24519
10	Cereals	570213	560584	102885	155707	342718	155046
11	Products of the milling industry	454	1793	1371	1777	1664	1041
12	Oil seeds and oleaginous fruits	35155	45765	48943	80171	99116	99703
13	Vegetable saps and extracts	2268	3931	3511	5137	6510	7210
14	Vegetable plaiting materials	854	1420	649	1338	1026	1085
15	Animal or vegetable fats and oils	311823	303138	396820	380505	410022	461642
16	Preparations of meat, of fish and of molluscs	108	521	1893	1626	1147	1365
17	Sugars and sugar confectionery	2326	300579	8856	8321	9818	4137
18	Cocoa and cocoa preparations	12704	18317	20248	20090	27724	32953
19	Preparations of cereals, flour, starch or milk	3574	9540	9248	8939	11591	9711
20	Preparations of vegetables and fruits	426	2008	2667	5537	5813	4990
21	Miscellaneous edible preparations	3066	7926	11114	16833	19976	19077
22	Beverages, spirits and vinegar	4304	12993	21104	13428	11731	13710
23	Waste from the food industries, animal fodder	40758	52604	75940	105002	110743	85049

(cont.)TABLE 2.3.10 Imports by chapter

code chapter	1989	1990	1991	1992	1993	1994
24 Tobacco and manufactured Tobacco	221021	337195	367049	318973	327284	139819
25 Salt, sulfur, earth, plastering materials, lime	100551	136310	109363	98852	102082	89323
26 Ores, slag and ash	59234	82164	111199	50969	68188	55456
27 Mineral fuels and oils	3247338	4622407	3756887	3760095	3964662	3817632
28 Inorganic chemicals	348261	376113	325555	300300	358058	284534
29 Organic chemicals	803837	868996	896447	949645	1037931	1028579
30 Pharmaceutical products	73995	105280	141482	157959	205603	203070
31 Fertilizers	271617	248163	265330	239756	310243	169500
32 Tanning or dyeing extracts	237473	344748	312033	409224	438584	395380
33 Essential oils and resinoids	24130	45957	45447	55560	81377	83714
34 Soap	39975	64600	83770	106097	99301	90101
35 Albuminoidal substances	18509	36764	30858	34698	44591	42830
36 Explosives	7759	7008	7270	5503	7004	7301
37 Photographic or cinematographic goods	57636	83918	88389	86126	106078	80350
38 Miscellaneous chemical products	218337	269174	265860	280872	291152	262348
39 Plastics and articles thereof	329850	562986	596932	698541	829867	761342
40 Rubber and articles thereof	156091	242246	250908	282214	331066	247664
41 Raw hides, skins and leather	163224	238092	219888	279894	366639	438356
42 Articles of leather	1855	3781	4600	5868	10216	6507
43 Furskins and artificial fur	4960	6537	3604	8692	12284	16200
44 Wood and articles of wood	77449	153862	159615	178620	396612	194690
45 Cork and articles of cork	832	1462	978	1274	1382	1085
46 Manufactures of plaiting materials	121	642	639	809	1520	849
47 Pulp of cellulosic material and waste of paper	100709	80166	71994	101813	103589	102242
48 Paper and paperboard	182355	212944	272291	261976	443454	301713
49 Printed books, newspapers etc.	24063	35397	33063	40126	120872	79125
50 Silk	6624	5495	2440	2405	4119	3120
51 Wool	101380	128733	105839	142353	164578	125762
52 Cotton, cotton yarn and cotton fabric	142064	303801	223809	340177	527798	549157
53 Paper yarn and woven fabrics	14820	29525	25764	28387	38129	45716
54 Man-made filaments	172213	217943	198662	255160	316002	281995
55 Man-made staple fibers	150966	282304	229081	298634	379887	353574
56 Wadding, felt and nonwovens	7953	20568	20963	26792	34304	36184
57 Carpets and other floor coverings	1164	6673	4667	5557	7030	4797
58 Special woven fabrics	2598	9750	10904	13800	29290	55598
59 Impregnated, coated etc. fabrics	21000	37390	41506	56578	57011	54206
60 Knitted or crocheted fabrics	3497	6830	9318	19692	33796	90588
61 Articles of apparel and clothing accessories knitted	3423	7196	9598	10615	14721	9171
62 Articles of apparel and clothing accessories not knitted	1255	5879	13074	14794	23223	19614
63 Other made-up textile articles	1939	4909	3844	9657	9529	7802
64 Footwear and the like	8375	26993	33733	25043	45129	28159
65 Headgear and parts thereof	105	493	603	737	1269	1046
66 Umbrellas, walking-sticks, whips	1049	2058	3037	1410	2267	1840
67 Feathers and down and artificial flowers	419	778	798	740	1074	955
68 Articles of stone, plaster or similar materials	21701	36220	39913	47750	52069	39375
69 Ceramic products	76751	89249	67038	72171	80493	74307
70 Glass and glassware	27450	55690	69437	74396	81140	61393
71 Pearls, precious stones, coin	13709	24202	11155	13100	15603	10109
72 Iron and steel	1940285	1613339	1643440	1722163	2663345	1982560
73 Articles of iron and steel	275317	307471	349614	378310	393125	397562
74 Copper and articles thereof	215700	211426	176658	144284	146135	183214
75 Nickel and articles thereof	13329	12794	11422	9899	13357	12931
76 Aluminum and articles thereof	137066	232970	208402	205773	248221	185986
77 Lead and articles thereof	8396	12909	13093	11843	16664	16753
78 Zinc and articles thereof	28065	45861	26611	40586	29824	26049
79 Tin and articles thereof	9839	10552	7257	5851	5320	5219
80 Other base metals, ceramist, articles thereof	6977	8272	7218	6605	9197	11970
81 Tools of base metal	35866	53546	57835	62295	102136	66623
82 Miscellaneous articles of base metal	20436	47242	57758	68057	84907	71947
83 Boilers, machinery, mechanical appliances	2202655	3778476	3794718	4080604	5261086	3765846



(cont.) TABLE 2.3.10 Imports by chapter

code chapter	1989	1990	1991	1992	1993	1994
84 Electrical machinery and equipment	1094834	1663894	1955795	1835699	2095889	1820124
85 Railway or tramway locomotives	35343	21390	8356	24230	129961	107169
86 Vehicles other than railway	347261	1117970	1028150	1318540	2140116	947576
87 Aircraft	261672	272215	301503	674020	1404982	802741
88 Ships, boats and floating structures	139458	176032	197193	199527	337533	279462
89 Optical instruments and apparatus	290175	504465	512730	548540	693032	549933
90 Clocks	27922	51918	53616	64599	74757	52355
91 Musical instruments	3829	11496	7723	6037	7213	3759
92 Arms and ammunition	4373	10339	9538	11586	21955	26785
93 Furniture	11158	37845	43738	60168	75562	54956
94 Toys, games and sports equipment	12755	25862	31257	32814	39608	27166
95 Miscellaneous manufactured articles	25467	45931	48711	65440	75991	64668
96 Works of art and collectors pieces	395	425	244	898	540	479

Source : Foreign Trade Statistics 1994

## 2.4 Industry

### 2.4.1 General

The structure of Gross Domestic Production in Turkey in 1994 at 1987 price is shown below.

**TABLE 2.4.1 The Structure of GDP in Turkey in 1994**

	MARMARA Region		TURKEY	
	Value	share in Marmara GDP	Value	share in Turkish GDP
	million TL	%	million TL	%
1. Agriculture	2 163 873	6.7	11 358 229	15.7
a. Agriculture and livestock production	1 939 011	6.0	13 265 809	11.5
b. Forestry	126 589	0.4	751 866	0.8
c. Fishing	98 271	0.3	310 551	0.1
2. Industry	12 068 111	37.1	21 771 978	27.1
a. Mining and quarrying	173 623	0.5	1 611 971	1.8
b. Manufacturing	11 232 916	31.5	20 172 575	22.1
c. Electricity, gas, water	661 573	2.0	2 660 133	2.9
3. Construction	1 816 697	5.7	6 141 351	6.7
4. Trade	6 618 055	20.3	18 155 150	20.2
a. Wholesale and retail trade	5 596 052	17.2	15 473 879	16.9
b. Hotel, restaurants services	1 022 003	3.1	2 981 271	3.3
5. Transportation and communication	1 128 375	12.7	11 835 117	13.0
6. Others	7 872 871	21.2	30 111 127	33.0
7. Total GDP (in purchasers' value)	32 531 112	100.0	91 320 722	100.0

*Source : SIS*

Heavy industries, such as oil refinery, steel and iron, are mainly located in Izmit, Izmir, Zonguldak and Iskenderun. Light industries, such as clothing, leather, and food, are located in throughout Turkey, and especially in Marmara Region. Industrial GDP consists of mining, manufacturing and energy. Recent trend of industrial share by above sector is indicated in Table 2.4.2.

As mentioned later, it is unlikely that a large scale heavy industrial zone will be established around the Marmara sea area except Izmit bay. On the other hand, light industries seem to have become most important to the region. Therefore in this study, mainly the light industries have been examined.

Turkey has a rich agricultural base. The main export item is processed fruits and vegetables, followed by textile goods. Other high potential industries are agro business and food processing, automotive components, electrical and electronic appliances, chemicals and non-electrical machinery.

TABLE 2.4.2 Gross domestic product at 1987 prices - By kind of activity in producers' value

	1987		1988		1989		1990		1991		1992		1993		1994	
	Value	000 000 TL	Value	000 000 TL	Value	000 000 TL	Value	000 000 TL	Value	000 000 TL	Value	000 000 TL	Value	000 000 TL	Value	000 000 TL
<b>MARMARA REGION</b>																
1. Agriculture	2 078 254		2 344 182		2 530 464		2 316 002		2 219 970		2 296 443		2 158 654		2 163 873	
2. Industry	9 228 344		9 305 373		9 745 594		10 774 188		11 114 378		11 997 946		13 213 895		12 068 141	
Mining and quarrying	181 065		195 945		210 111		189 111		168 864		174 212		196 221		173 623	
Manufacturing	8 747 869		8 798 442		9 040 904		10 049 536		10 355 028		11 226 627		12 404 699		11 232 946	
Electricity, gas, water	299 410		310 987		494 578		535 541		589 486		597 107		612 974		661 573	
3. Service	15 040 359		15 054 825		15 246 056		16 878 650		17 143 688		18 205 722		20 310 159		18 302 128	
4. GDP	26 346 957		26 704 380		27 522 113		29 968 840		30 478 035		32 500 112		35 682 707		32 534 142	
<b>Share</b>																
1. Agriculture	7.90%		8.80%		9.20%		7.70%		7.30%		7.10%		6.00%		6.70%	
2. Industry	35.00%		34.80%		35.40%		36.00%		36.50%		36.90%		37.00%		37.10%	
Mining and quarrying	2.00%		2.10%		2.20%		1.80%		1.50%		1.50%		1.50%		1.40%	
Manufacturing	94.80%		94.60%		92.80%		93.30%		93.20%		93.60%		93.90%		93.10%	
Electricity, gas, water	3.20%		3.30%		5.10%		5.00%		5.30%		5.00%		4.60%		5.50%	
3. Service	57.10%		56.40%		55.40%		56.30%		56.20%		56.00%		56.90%		56.30%	
4. GDP	100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%	
<b>Average</b>																
1. Agriculture	7.60%		7.60%		7.60%		7.60%		7.60%		7.60%		7.60%		7.60%	
2. Industry	36.10%		36.10%		36.10%		36.10%		36.10%		36.10%		36.10%		36.10%	
Mining and quarrying	1.70%		1.70%		1.70%		1.70%		1.70%		1.70%		1.70%		1.70%	
Manufacturing	93.60%		93.60%		93.60%		93.60%		93.60%		93.60%		93.60%		93.60%	
Electricity, gas, water	4.60%		4.60%		4.60%		4.60%		4.60%		4.60%		4.60%		4.60%	
3. Service	56.30%		56.30%		56.30%		56.30%		56.30%		56.30%		56.30%		56.30%	
4. GDP	100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%		100.00%	

Source: SIS

Note: Agriculture, Industry and Service indicate share in GDP.

Mining, Manufacturing and Electricity indicate share in Industry

Turkey and the European Union (EU) signed an agreement to establish a customs union on March 6 1995. As it moves towards full membership with the EU, Turkey will deepen its economic globalization process. Turkey has already signed a free trade agreement with the European Free Trade Association (EFTA) in 1993. Turkey has also headed the formation of Black Sea Economic Co-operation designed to promote practical links between the countries around the Black Sea, and Turkey is also the leader of Economic Co-operation Organization which groups Turkey, Iran, Pakistan with the Republic of Central Asia.

The EU is Turkey's major trading partner. Currently almost 46% of Turkey's exports are destined for the Union, where as 44% of her imports originate in it. In 1993 the total trade volume between Turkey and the EU, for the first time, crossed the benchmark of 20 billion US\$, placing Turkey in the League of the Union's 10 most important partners. Furthermore, currently two thirds of Turkey's foreign capital stock belong to the six industrialized countries of West Europe.

The reform of the Turkish Economy and an overall change in economic philosophy were realized at the beginning of 1980 through the comprehensive economic stabilization and structural adjustment program based on free market principles and the introduction of outward-oriented economic policies.

As mentioned before, industrial development is being advanced by public support systems such as Organized Industrial Zones, Small Size Industrial Estates, and Free Zones.

The Free Zones Law (no. 3218) was enacted on June 6, 1995. Since then, operational activities in Antalya, Mersin, Izmir-Aegean, Istanbul-Ataturk Airport, Trabzon and Istanbul Leather Free Zones have been successfully launched. Furthermore, the location and boundaries of the Adana-Yumurtalik, Istanbul-Trakya, Zonguldak -Filyos, Mardin, Eastern Anatolia Free Zones and Istanbul Ataturk Airport Free Zone Off-Shore Banking Center have been determined. As of the end of October 1994, the total volume of trade within these six free zones has exceeded USD 4.3 billion. In the first ten months of 1994 volume of trade has reached USD 1.586 billion, an increase of 99 percent over the same period in 1993.

**TABLE 2.4.3 Annual Volume of Trade of the Free Zones (US\$)**

ZONES	1988	1989	1990	1991	1992	1993	1994/01-10
1-Antalya	1.320.972	31.683.069	7.910.060	14.781.418	30.428.003	62.750.205	63.991.089
2-Mersin	152.447.119	117.782.340	272.532.928	420.353.872	414.641.453	513.143.106	791.567.455
3-Istanbul-AFZ	-	-	1.583.722	27.917.682	121.788.623	173.741.886	324.606.613
4-Aegean	-	-	82.200	28.124.162	55.831.538	227.653.424	370.930.190
5-Trabzon	-	-	-	-	4.878.396	13.616.072	35.224.197
6-Istanbul-Leather*	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>153.768.091</b>	<b>152.465.409</b>	<b>282.103.910</b>	<b>491.207.164</b>	<b>627.568.013</b>	<b>1.020.909.693</b>	<b>1.586.219.574</b>

\* Infrastructure yet to be completed

Free Zones accounted for 2.7 % of Turkey's total export value , or US\$ 545 million. Free Zones also accounted for 2.5 % of the total import volume, or US\$ 969 million. Efforts are being made to raise the total volume of trade through Turkish Free Zones to 100% from the current level of 5.2 %.

Organized industrial zones are being promoted to develop unutilized area and to encourage investment without creating instability. The Ministry offers long term low interest loans for the "Construction of Organized Industrial Zones and Small Scale Industrial Estates and Coverage Of Administrative Cost Fund" through the institutions which are especially established for this purpose.

#### Main policies in the establishment of Organized Industrial Zones

- To help to develop systematically planned cities.
- To develop industry in the underdeveloped areas.
- Prevent the usage of agricultural land in industry.
- To prevent contamination by the common waste water treatment plants.
- To stimulate industry by supplying inexpensive land with infrastructure already in place..

From 1962 to the end of 1995, 36 Organized Industrial Zones of 8582 hectares (21198 acres) have been established. The credit supplied for these zones is 14 Trillion TL in terms of 1995 prices.

**TABLE 2.4.4 Current Status of Organized Industrial Zones****May, 1996**

	Number of Projects	Total Area (ha)	Number of Enterprises in Production	Employment (people)
Completed projects	36	8,582	2,134	213,400
Investment program (1996)				
a. Projects to be completed in 1996	1	75	-	-
b. Projects to be completed after 1996	54	14,667	246	24,600
c. Projects at expropriation stage	30	5,080	-	-
d. Projects at design stage(continue)	16	-	-	-
e. Projects at design stage(new)	17	-	-	-
<b>Total</b>	<b>118</b>	<b>19,822</b>	<b>246</b>	<b>24,600</b>
<b>Grand total</b>	<b>155(*)</b>	<b>28,404</b>	<b>2,380</b>	<b>238,000</b>

SOURCE: Ministry of Industry and Commerce

Note: (\*) Determination of Izmir-Aliaga pollution land and environmental bearing capacity and projects is included in grand total

**TABLE 2.4.5 Conditions of Financial Incentives****May, 1996**

	Ministry support	Rate of interest	Repayment Non payment X1 years Repayment X2 years	In allocation of plots Advance payment in terms of X3 % of temporary cost of the plant
Developed areas	90 %	22 %	X1= 2 years X2= 7 years	X3=25 %
Normal areas	95 %	20 %	X1=3 years X2=8 years	X3=20 %
2 <sup>nd</sup> degree priority development areas	98 %	18 %	X1=4 years X2=9 years	X3=15 %
1 <sup>st</sup> degree priority development areas	99 %	15 %	X1=5 years X2=10 years	X3=10 %

Most of the small scale enterprises, retailers and artisans ply their trade at very inconvenient shops which are not suitable for the contemporaneous trade. In addition most of these small scale enterprises which are scattered in the various neighborhoods do not comply with the health requirements. The only effective solution for this problem is the establishment

of the Small Scale Industrial Estates. Similar sectors are collected in the same area by the Small scale Industrial Estates. Local needs are met easily and economically; while the small scale enterprises are equipped with modern technology. Furthermore, besides increasing job opportunities, Small Scale Industrial Estates have little impact on the environment and prevent sprawled urbanization.

**TABLE 2.4.6 Present Status of Small Size Industrial Estate May,1996**

	Number of Projects	Number of Enterprises in Production	Employment (people)
Completed projects	273	66,335	398,000
Investment program (1996)			
a. Projects to be completed in 1996	17	4,906	29,430
b. Projects to be completed after 1996	133	29,346	176,070
c. Projects at expropriation stage	5	966	5,800
d. Projects at design stage(continue)			
e. Projects at design stage(new)			
Total	155	35,218	211,300
Grand total	428	101,553	609,300

*SOURCE: Ministry of Industry and Commerce*

**TABLE 2.4.7 Conditions of Financial Incentives May, 1996**

	Ministry support	Rate of interest	Repayment Non payment X1 years Repayment X2 years
Developed areas	50-60 %	20-22 %	X1= 1 years X2= 10 years
Normal areas	55-60 %	20 %	X1=1 years X2=10 years
2 <sup>nd</sup> degree priority development areas	65-70 %	18 %	X1=1 years X2=10 years
1 <sup>st</sup> degree priority development areas	70 %	15 %	X1=1 years X2=10 years

## 2.4.2 Industrial Activity by Sector

### (1) Agricultural Production

According to the figures of 1994, field crops and livestock account for 93% of the overall agricultural production. Since livestock production has not been improved during the recent years, it is seen that the agricultural production highly depends on the status of harvest and production of fruits and vegetables. A normal production year in 1992, together with the increases in the production of fishing and forestry, had led to an increase of 3.7% of the agricultural sector's Gross Domestic Production. In 1993, however, 1.3% fall was recorded in the income of the agricultural sector. Data of 1994 and 1995 are shown below.

**TABLE 2.4.8 GDP in Agricultural Sector 1993-1994**

	in 1987 fixed prices-billion TL		
	1994	1995	%variation
Farming and livestock	13,391.4	13,265.8	-0.9
Forestry	732.8	751.9	2.6
Fishing	338.8	340.5	0.5
Total	14,463.0	14,358.2	-0.7

**TABLE 2.4.9 GNP in Agricultural Sector, 1994-1995 First 9 months**

	in 1987 fixed prices-billion TL		
	1994 Jan.-Sep.	1995 Jan.-Sep.	% variation
Farming and livestock	10,624.5	10,846.1	1.8
Forestry	631.6	822.8	30.3
Fishing	225.2	243.9	8.3
Total	11,511.3	11,912.8	3.5

Wheat production reached 21 million tons in 1993 but decreased to 17.5 million tons the following year. Although the downward trend was reversed in 1995, Production is not expect to recover to its 1993 level.



**TABLE 2.4.10 Agricultural Production Quantities (Thousand tons)**

Products	1993 Performance	1994/93	1991	1995/94	1995
<b>Grains</b>					
-Wheat	21000	-16.6	17500	2.9	18000
-Barley	7500	-6.7	7000	7.1	7500
-Corn	2500	-26.0	18500	-8.11	1700
-Rice	225	-11.1	200	25.0	250
<b>Legumes</b>					
-Lentile	735	-17	610	18.8	725
-Chickpeas	740	-12.1	650	15.3	750
-Beans	200	-10.0	180	5.0	210
-Industrial crops	200	-10.0	180	5.0	210
-Sugar beets	15620.5	-18.4	12736.0	-10.6	11380.0
-Cotton	1561.4	-18.4	12736.0	-10.6	11380.0
-Tobacco	338.8	-35.8	217.4	4.1	226.5
-Cumin seeds	10.0	25	7.5	6.7	8.0
-Anise	28	-1.7	27.5	-3.6	26.5
-Sunflower seeds	815	-9.2	740	14.8	850
-Soybeans	63	11.1	70	-54.2	32
-Sesame	30	13.3	34	-11.7	30
-Tea	578	13.1	651	-24.7	492
-Olives	550	154.5	1400	-57.1	600
<b>Fruits</b>					
-Grapes	3700	-6.7	3450	1.4	3500
-Apples	2080	0.7	2095	-	2095
-Oranges	810	9.5	920	-	920
-Lemons	440	6.8	470	-	430
-Tangerines	405	6.1	430	-	430
-Pears	420	-2.3	410	-1.2	405
-Figs	270	3.3	279	-3.2	270
-Peaches	370	1.3	375	-1.3	370
-Apricots	230	7.4	400	-42.5	230
-Cherries	155	3.2	160	-	160
-Walnuts	155	4.3	120	-	120
-Hazelnuts	305	6.6	490	-8.1	450
-Quinces	78	5.1	82	-2.4	80
-Chestnuts	80	-5	76	-	76
-Strawberries	60	8.3	65	7.7	70
-Almonds	48	-2.1	47	-2.1	46
-Pistachio	50	-20	40	27.5	29
-Melons/WaterMelons	4900	10.2	5400	-	5400
<b>Vegetables</b>					
-Tomatoes	6150	3.2	6385	10.2	7000
-Cucumbers	1050	8.5	1140	10.5	1260
-Aubergines	750	8	810	-1.2	800
-Cabbages	697	-	697	-2	683
-Peppers	965	4.4	1008	-28.1	724
-Beans(fresh)	440	-4.1	435	3.4	450
-Leeks	315	-1.6	310	-0.6	308
-Squash	255	11.7	285	5.2	300
-Carrots	210	7.1	25	-	225
-Spinach	157	8.2	170	2.8	175
-Onions	1650	9.1	1800	38.9	2500
-Potatoes	4650	-6.4	4350	9.1	4750
-Dried garlic	65	-	65	15.3	75

Source: IS Bulletin, 1<sup>st</sup> Provincial Estimates for 1995

## (2) Cement Industry

The first cement plant in Turkey was set up in Darica, Istanbul in 1911 with an annual capacity of 20 thousand tons. In 1963, at the beginning of the First Five Years Development Plan total cement production reached 2.7 million tons and consumption per capita rose to 93kg. The rate of increase of production continued during the following Five Years Development Plan periods at about the same rate and eventually the total clinker production capacities reached 4.2, 9.3, 17.2, 19.7, 24.7 million tons at the end of the First, Second, Third, Fourth and Fifth Five Years Development Plan Periods(1967, 1972, 1977, 1983 and 1989).

**TABLE 2.4.11 Development of Cement Sector**

Year	Number of plant	Clinker production capacity (000 tons)
1911	1	20
1953	6	810
1960	14	1935
1970	26	8145
1980	35	18535
1990	41	25360
1994	48	29340

**TABLE 2.4.12 Activities of Cement Sector**

Year	Cement production (000 tons)	Import (000 tons)	Export (000 tons)	Cement consumption (000 tons)	Consumption per capita (000 tons)
1984	15738	-	1932	13831	282
1989	23801	509	1098	23377	423
1994	29519	51	5204	26703	434

## (3) Fertilizer Industry

Consumption of chemical fertilizer on a large scale in Turkey started in the post World War II period, particularly in the late 1960's. During the last 20 years, fertilizer consumption has witnessed a rapid and continuous increase from 87 thousand tones in 1963 to 2 million tons in 1994.

#### (4) Automotive Industry

Nineteen firms are engaged in this field working under licensed from several foreign countries, some of them are joint ventures with well known foreign firms. The names and licensors of the major companies dealing with the production of motor vehicles at present in Turkey are listed in Table 2.4.18. The annual vehicle production capacity is 600,000, production reached a peak of 453,484 units in 1993. In 1994 however, due to the general economic condition of the country, vehicle production was only 265,837 units.

The export of vehicles and spare parts from Turkey which started in 1970, generally covers the Middle East, South west and North African countries. In Turkey there are now companies which can be realized by providing licenses and know-how, by preparing projects of assembly plants and by providing financial facilities to developing countries. Main automotive industry exports were valued US\$134 million in 1993 and US\$209 million in 1994. Total value of exports in this industry reached US\$405 million in 1990 and US\$758 million in 1994 (the export of tyres and tubes industry ).

**TABLE 2.4.13 The Names and Licensers of Major Automotive Companies**

Name of the Company	Product	Licenser
A.O.S.	Truck, Pick-up, Small bus	Isuzu
B.M.C.	Truck, Pick-up, Minibus, Bus, Small bus	Cummins
CHRYSLER	Truck, Pick-up	Chrysler
KARSAN	Pick-up, Minibus, Midibus	Peugeot
M.A.N.	Trailer, Truck, Bus	M.A.N.
M.BENZ	Trailer, Truck, Bus, Small bus	M.Benz
OPEL	Passenger car	Opel
OTOKAR	Pick-up, Minibus, Bus, Small bus	KHD/LandRover
OTOSAN	Truck, Pick-up, Passenger car, Minibus	Ford
OTOYOL	Trailer, Truck, Pick-up, Small bus	Iveco/Fiat
O.RENAULT	Passenger car	Renault
TEMSA	Truck, Bus, Small bus	Mitsubishi
TOFAS	Passenger car	Fiat
TOYOTASA	Passenger car	Toyota
T.TRAKTOR	Tractor	Fiat
UZEL	Tractor	MasseyFerguson/Perkins

As with many fields of industry, especially in the last decade, Turkey has attained considerable figures in the auto components industry. Beginning with the installation of vehicle assembly factories in Turkey, the auto components industry has grown very fast.

Currently there are 1300 companies in the components sector, of which just over 50% produce only for one vehicle manufacturer, 20% produce for two, 10% for three, and the remainder for four or more. Most of the firms are located in the Zone of Istanbul(781), followed by Bursa(182), Izmir(169), Ankara(56) and Kocaeli(36). The share of locally produced parts for vehicles was about 20-25% in 1964. This figure increased to 55-65% by 1970, to 60-75% by 1975, 85-90% by 1985 and reached 90-96% by 1990. Today many of the high precision and sophisticated technological parts used in engines can be produced at competitive prices for international markets. The value of exports in auto components industry which stood at US\$200 million at the beginning of 1990, reached US\$418 million in 1993 including the exports in the tyres and tubes industry. In 1994, it reached 705 million US\$ when the export level of tyres and tubes industry is included. The export level of auto components industry excluding exports of tyres and tubes industry was 251 million US\$ in 1993 and 550 million US\$ in 1994.

#### (5) Textile, Ready Wear Garments and Leather Industry

Turkey has always been among the main textile producing and exporting countries in the world. Total textile and clothing exports (including fibers) of Turkey is about 5.6 million US\$ in 1993 and its share in the total export figure of Turkey is, about 37% and when the figures of 11 months of 1994 are considered, an increase of 14% is evident compared with the same period of the previous year. The cotton industry is one of the oldest and the most important sector in the Turkish economy. Traditionally, Turkey has been a grower and exporter of raw cotton and a manufacturer of cotton yarn and woven fabric. In 1993 516,000 tons of cotton yarn was produced in Turkey. The majority of the ready wear garment firms are concentrated in and around Istanbul. Most of the remaining firms are located in Izmir, Ankara, Bursa, Adana, Eskisehir and Denizli.

**TABLE 2.4.14 Textile and Clothing Industry Production Quantities**

Year	1993	1994	1995 (expected)
Cotton(000 tons)	574.0	598.0	600.0
Cotton yarn(000 tons)	517.6	585.0	610.0
Woolen Yarn(000 tons)	110.0	114.4	117.2
Hand-made carpet(000 000 m <sup>2</sup> )	3.7	3.7	4.0
Machine-made carpet(000 000 m <sup>2</sup> )	19.2	19.9	22.2
Ready-wear Other ready-wear products(000 tons)	201.52	212.3	233.8

**TABLE 2.4.15 Textile and Clothing Industry Export Quantities**

Year	1993	1994	1995 (expected)
Cotton(000 tons)	181.8	134.0	110.0
Cotton yarn(000 tons)	31.6	110.0	121.0
Woolen Yarn(000 tons)	0.3	0.9	1.0
Hand-made carpet(000 000 m <sup>2</sup> )	1.0	1.3	1.5
Machine-made carpet(000 000 m <sup>2</sup> )	7.0	9.0	10.9
Ready-wear Other ready-wear products(000 tons)	326.3	148.7	169.0

Turkish leather industry has a history going back to the Middle Ages. Until this century, the leather industry operated with the organizational methods of the old system, using vegetable tanners and chrome tanning at the beginning of the 19<sup>th</sup> century. Turkish leather goods and clothing production and exports have displayed a steady and substantial growth.

**TABLE 2.4.16. Leather Production Quantities**

Year	1993	1994	1995 (expected)
Sheep,lamb,goat skin leather (000 000 tons)	3423.1	3576.4	3737.1
Bovine leather			
Calf leather(000 d m <sup>2</sup> )	1088.5	907.3	1008.1
Sole leather(000 tons)	7.6	4.7	5.7
Leather clothing(000 unit)	7776.9	8083.7	8557.7
Footwear(000 000 pair)	109.5	103.3	110.7

**TABLE 2.4.17 Leather Good Export Quantities (million US\$)**

Year	1990	1991	1992	1993	1994
Leather clothing	699.5	569.6	515.1	495.9	471.5
Finished leather	7.7	7.7	11.3	16.5	27.8
Articles of leather saddlery	33.3	33.3	34.7	32.7	32.1
Footwear	51.6	51.6	51.5	76.4	134.1
Total	662.2	662.2	612.6	621.2	665.4

### 2.4.3 Industrial Characteristics in Marmara Area

**TABLE 2.4.18. Gross Domestic Product in 1994 at 1987 Prices  
by kind of Activity in Producers' Value**

	BALIKESIR		BURSA		CANAKKALE	
	Value	share in	Value	share in	Value	share in
	million TL	Marmara GDP %	million TL	Marmara GDP %	million TL	Marmara GDP %
1. Agriculture	480 233	1.5	516 409	1.6	239 219	0.7
a. Agriculture and livestock production	133 169	1.3	182 627	1.5	200 963	0.6
b. Forestry	32 693	0.1	23 950	0.1	21 645	0.1
c. Fishing	14 371	0.0	9 832	0.0	13 611	0.0
2. Industry	291 888	0.9	1 466 334	4.5	251 532	0.8
a. Mining and quarrying	51 173	0.2	17 828	0.1	17 617	0.1
b. Manufacturing	218 368	0.7	1 400 617	4.3	232 966	0.7
c. Electricity, gas, water	22 327	0.1	47 859	0.1	3 949	0.0
3. Construction	130 385	0.4	230 473	0.7	43 817	0.1
4. Trade	161 892	0.5	517 128	1.7	122 514	0.4
a. Wholesale and retail trade	116 363	0.4	153 611	1.4	95 884	0.3
b. Hotel, restaurants services	45 529	0.1	93 517	0.3	26 630	0.1
5. Transportation and communication	224 221	0.7	399 401	1.2	116 412	0.4
6. Others	759 436	2.3	1 037 580	3.2	342 554	1.1
7. Total GDP (In purchasers' value)	1 564 822	1.8	3 680 919	11.3	879 830	2.7

	ISTANBUL		KOCAELI		TEKIRDAG	
	Value	share in	Value	share in	Value	share in
	million TL	Marmara GDP %	million TL	Marmara GDP %	million TL	Marmara GDP %
1. Agriculture	158 539	0.5	126 457	0.4	148 021	0.5
a. Agriculture and livestock production	112 687	0.3	116 984	0.4	140 062	0.4
b. Forestry	8 597	0.0	4 331	0.0	1 870	0.0
c. Fishing	37 256	0.1	5 142	0.0	6 089	0.0
2. Industry	6 604 214	20.3	2 211 241	6.8	319 928	1.1
a. Mining and quarrying	54 289	0.2	11 018	0.0	1 238	0.0
b. Manufacturing	6 138 340	18.9	2 187 052	6.7	330 722	1.0
c. Electricity, gas, water	411 586	1.3	13 141	0.0	8 968	0.0
3. Construction	947 906	2.9	144 645	0.4	128 402	0.4
4. Trade	1 886 709	15.0	397 735	1.2	108 568	0.3
a. Wholesale and retail trade	1 123 090	12.7	370 369	1.1	93 450	0.3
b. Hotel, restaurants services	763 619	2.3	27 366	0.1	15 118	0.0
5. Transportation and communication	2 739 831	8.4	282 582	0.9	90 623	0.3
6. Others	3 340 279	10.3	1 193 959	3.7	309 961	1.0
7. Total GDP (In purchasers' value)	18 518 939	56.9	4 230 165	13.0	987 485	3.0

	MARMARA Region		TURKEY	
	Value	share in	Value	share in
	million TL	Marmara GDP %	million TL	Turkish GDP %
1. Agriculture	2 163 873	6.7	14 358 229	15.7
a. Agriculture and livestock production	1 939 011	6.0	13 265 809	14.5
b. Forestry	126 589	0.4	751 866	0.8
c. Fishing	98 274	0.3	340 551	0.4
2. Industry	12 068 141	37.1	24 774 978	27.1
a. Mining and quarrying	173 623	0.5	1 641 971	1.8
b. Manufacturing	11 232 946	34.5	20 472 575	22.4
c. Electricity, gas, water	661 573	2.0	2 660 433	2.9
3. Construction	1 846 697	5.7	6 144 351	6.7
4. Trade	6 648 055	20.3	18 455 150	20.2
a. Wholesale and retail trade	5 596 052	17.2	15 473 879	16.9
b. Hotel, restaurants services	1 022 003	3.1	2 981 271	3.3
5. Transportation and communication	4 128 375	12.7	11 835 117	13.0
6. Others	7 872 874	24.2	30 111 127	33.0
7. Total GDP (In purchasers' value)	32 534 142	100.0	91 320 722	100.0

Industrial establishment selects a feasible place for purchasing, manufacturing and shipping. Distribution of major factories in Marmara Region is shown in Figure 2.4.1. This is based on an established list of factories which employ more than 100 workers as of May 1996. Major factories by province are listed below.

**TABLE 2.4.19. Major Factories in Marmara Region**

Province	Factory
Istanbul	machinery, textile, food
Tekirdag	textile, machinery, food
Kirklareli	mineral, machinery, textile, food, chemical
Edirne	textile, food
Kocaeli	chemical, machinery, metal, mineral
Sakarya	machinery, food, chemical
Bilecik	mineral, machine, paper, chemical
Bursa	machinery, textile, chemical
Balıksir	chemical, food, machinery
Canakkale	mineral, food

Source: TOBB

Marmara Region is divided into 4 independent hinterland areas ; Thrace area, Izmit

area(include Bursa), Balıkesir and Çanakkale. Number of enterprises, number of people employed and value added by area in 1991 are shown in Tables 2.4.20. Data of Balıksir and Çanakkale are revised by provincial statistics issued by SIS.

**TABLE 2.4.20. Manufacturing Industry in 1991**

Group	No. of Enterprise		No. of People Employed		Value Added (Billion TL in 1994 prise)	
	Thrace	Izmit	Thrace	Izmit	Thrace	Izmit
Food	138	92	18 246	11 747	26 280	14 392
Textile	894	213	103 963	42 333	50 917	23 765
Wood	30	32	979	1 819	709	936
Paper	105	25	9 631	681	10 253	321
Chemical	222	147	24 790	23 696	36 789	90 839
Mineral	60	56	5 347	10 538	5 061	13 210
Metal	78	67	5 820	10 489	5 899	15 116
Machinery	409	307	52 297	63 622	39 964	72 012
Other	40	7	2 121	223	988	132

Group	No. of Enterprise		No. of People Employed		Value Added (Billion TL in 1994 prise)	
	Balıksir	Çanakkale	Balıksir	Çanakkale	Balıksir	Çanakkale
Food	25	13	4 567	2 395	5 649	1 345
Textile	3	0	479	0	338	0
Wood	2	0	177	0	21	0
Paper	1	0	975	0	410	0
Chemical	6	1	2 194	225	3 375	304
Mineral	3	4	?	2 856	0	6 578
Metal	1	0	?	0	0	0
Machinery	8	0	769	0	564	0
Other	0	0	0	0	0	0



#### 2.4.4 Industry in Thrace Region

Current and planned industrial activities operated in selected industrial areas of the Thrace Region are listed in Tables 2.4.22.- 2.4.24.

##### (1) Istanbul

Major products of each industrial zone are identified in the following table.

**TABLE 2.4.21. Major Products in Istanbul by Industrial Zone**

Zone	Products
Avcılar	Forest, Paper, Printing, Others
Kurtkoy	Forest, Chemical, Metal, Dye, Industry based on Soil & Rock
Tuzla	Textile
Tepeoren	Chemical
Hosdere	Textile, Metal,
Kirac	Major metal
Esenyurt	Chemical
Buyukcekmece	Mineral

*Source: Istanbul Metropolitan Area Sub-Region Master Plan*

##### (2) Tekirdag

Major industrial outputs in Tekirdag are textile and food. Fourteen of the largest 20 companies belong to the textile industry, including leather and apparel. And around 30 % of industrial establishments in Tekirdag are related to the food industry based on agricultural production.

##### (3) Kirklareli

Mineral, textile, food and machinery are the main industrial groups in this province.

##### (4) Edirne

Textile is a major industry in Edirne. Nine of the top 13 companies in Edirne are from the textile industry. There are 13 companies which employ over 100 workers.

**TABLE 2.4.22 Organized Industrial Zone in Thrace Region**

Name	Stage	Establishment	Size(ha)
<b>Istanbul</b>			
Deri	operation	1983-92	210
Ikitelli	construction	1990-97	800
Deri (new)	plan	1996-97	n a.
<b>Tekirdag</b>			
Cerkezoy I	operation	1975-88	110
Cerkezoy II	construction	1991-98	920
Merkez	construction	1993-96	100
Malkara	construction	1994-96	200
Hayrabolu	construction	1994-96	250
Corlu	plan	1996-96	n a.
Muratli	plan	1996-96	n a.
Corlu(Deri)	plan	1996-96	n a.
<b>Kirklareli</b>			
Merkez	construction	1991-97	100
Babaeski	plan	1996-96	n a.
Pinarhisar	plan	1996-96	n a.
Pehlivan koy	plan	1996-96	n a.
<b>Edirne</b>			
Merkez	construction	1994-96	95
Kesan	plan	1996-96	n a.
Uzunkopru	plan	1996-96	n a.

*Source : Ministry of Industry and Trade*

**TABLE 2.4.23. Small Scale Industrial Estate in Thrace Region**

Name	Stage	Establishment	Size(ha)
<b>Istanbul</b>			
Merkez(Ataturk)	operation	1971-74	346
Merkez(Dogu)	operation	1976-79	258
Merkez(Imes)	operation	1977-85	813
Merkez(Modoko-Sosyal)	operation	1978-84	0
Merkez(Evren Oto)	operation	1984-94	462
Kadikoy Oto	operation	1978-80	176
Merkez(Modoko)	operation	1978-84	275
Merkez(Birlik)	operation	1985-90	228
Silivri	construction	1991-98	150
MRK(Maltepe Koruma)	plan	1996-00	210
Kartal(Dokum Metal Isleme)	plan	1996-00	300
B.Cekirgece(guven)	plan	1996-97	51
Silivri	plan	1996-98	n a
<b>Tekirdag</b>			
Merkez	operation	1966-68	146
Hayrabolu	operation	1976-80	160
Malkara	operation	1982-87	214
Corlu Koordine	operation	1981-90	548
Merkez	operation	1985-89	450
Muratli	construction	1994-98	150
Sarkoy	construction	1994-98	100
Hayrabolu(II Bolum)	plan	1996-97	52
Saray	plan	1996-98	100
Malkara(Madeni Etya)	plan	1996-00	350
Cerkezkooy	plan	1996-97	90
MRK(Birlecik)	plan	1996-99	200
Muratli	plan	1996-98	n a
Sarkoy	plan	1996-97	n a
<b>Kirkklareli</b>			
Merkez	operation	1975-77	224
Luleburgaz	operation	1982-86	178
Merkez(Kirkklar)	operation	1986-95	179
Babaeski	construction	1996-98	150
Pinarhisar	construction	1996-98	100
Luruburgaz	construction	1996-00	250

Merkez(Kirklar)	plan	1996-97	na
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Source: Ministry of Industry and Trade

**TABLE 2.4.24. Free Zone in Thrace Region**

Name	Stage	Establishment	Size(ha)
<b>Istanbul</b>			
Ataturk Airport Free Zone	operation	1990-	1
Leather Free Zone	construction	1994-	11.4
<b>Tekirdag</b>			
Chorlu Free Zone	idea	?	na

Source: Undersecretariat of Foreign Trade

## 2.4.5 Questionnaire Survey

Questionnaire Survey was conducted concerning current industrial activity on private establishments and authorized industrial areas such as Organized Industrial Areas, Small Scale Industrial Estate and Free Zones. Questionnaires on Organized Industrial Areas are attached in Appendices.

From this survey major industrial indicators and future economic environment are recognized. Industrial output per employee, area and establishment are used as basic indicators for future projection. Some respondents feared that full membership of European Union would have a negative influence on their activities.

### (1) Number of Respondents

Total number of 39 respondents replied to the questionnaire. Breakdown is as follows: Organized Industrial Areas-17, Small Scale Industrial Estate-3, Free Zone-6, Private Establishment-13.

### (2) Influence of Full Membership of European Union

Influence on three economic activities is expected to be positive for the most part. However, domestic trade is expected to suffer according to 15% of respondents. This seems to indicate that Turkish citizens prefer durable European consumer goods rather than Turkish ones because the price will be less than before.

**TABLE 2.4.25 Influence of Full Membership of European Union**

	Industrial Development	Domestic Trade	Foreign Trade
Positive	32 (82%)	26 (67%)	34 (87%)
Negative	2 ( 5%)	7 (18%)	1 ( 3%)
Other	5 (13%)	6 (15%)	4 (10%)

**(3) Industrial Output of Organized Industrial Areas**

Sales per employee is set at 1416 million TL in 1994 price based on 8 models. And average number of employee per unit area(=hectare) is set at 69 based on 9 models. Details are shown in the following Tables.

**TABLE 2.4.26 Sales per Employee of Organized Industrial Areas**

Case	No. of Employee	Sales (million TL in 1994 price)	Sales per Employee
1	605	1,910,688	3,158
2	430	559,725	1,302
3	527	1,486,804	2,821
4	2,395	3,150,000	1,315
5	600	1,164,605	1,941
6	579	1,398,059	2,415
7	561	676,279	1,205
8	7,654	8,563,113	1,119
Total & Ave.	13,351	18,909,302	1,416

**TABLE 2.4.27 Number of Employee per Hectare of Organized Industrial Areas**

Case	Area (ha)	No. of Employee	No. of Employee per ha
1	230	1,518	43
2	60	597	27
3	200	705	10
4	100	356	9
5	600	6,201	82
6	150	415	33
7	100	686	81
8	360	586	123
9	150	9,670	86
Total & Ave.	1,950	133,946	69

Value added per ha is counted at 40,859 million TL by using values of output and

value added in Annual Manufacturing Industry Statistics 1991 (shown below).

**TABLE 2.4.28 Total Output and Value Added of Turkish Establishments**

Sales	Value added
(million TL in 1991 price)	
312,578,676	130,654,019

*Source: Annual Manufacturing Industry Statistics 1991, SIS*

*Note: Data are collected from all establishments in the public sector and establishments with 25 or more persons engaged in the private sector*

Value Added per employee = 592 =  $1416 \times 130,654,019 / 312,578,676$  (million TL)

Value Added per ha = 40,859 =  $69 \times 592$  (million TL)

Sales per cargo weight is much different by type of product, but questionnaire survey set its range from 0.3 million TL to 54.2 million TL per ton based on 5 replies as follows.

**TABLE 2.4.29 Cargo Value of Organized Industrial Area**

Case	Input	Output	Output Value	Value per Product (ton)
	(ton)		(million TL in 1994 Price)	
1	32,230	28,179	1,910,688	67.8
2	1,220,920	719,620	3,150,030	4.4
3	12,693	8,787	1,164,605	132.5
4	1,297,312	1,037,850	1,398,059	1.3
5	19,889	7,4485	676,279	90.4
Total & Ave.	2,583,044	1,801,921	8,299,661	4.6

The ratio of input cargo to output cargo equals 1.4(=2,583,044/1,801,921).

#### (4) Industrial output of Small Scale Industrial Estate

Industrial economic data obtained from above Statistics are presented in the following Table.

**TABLE 2.4.30 Value Added of Small Scale Industrial Estates**

No. of Employee	Value Added (million TL)	Value Added per Employee
46,258	13,272,976	287

When average number of employee is set at 5 for establishment in SSIE, average value added of establishment is assumed at 1435 million TL.

$$\text{Value Added per establishment} = 1435 = 5 * 287 \text{ (million TL)}$$

#### (5) Output of Free Zone

From interviews with experts in the Free Zone, it was learned that sales value of 4000 US\$ (= 116 million TL in 1994 price) per 1 ton of cargo is the standard in Turkey.

Replies from respondents indicate various values by type of product as shown in the following Table.

**TABLE 2.4.31 Cargo Value per Weight of Free Zone**

Type of Trade	Commodity	Cargo Value (million TL/ton)
Domestic	leather, apparel	89.8
	chemical cloth	111.0
	bulk(various)	0.1
Foreign	leather, apparel	74.4
	food	13.2
	bulk(various)	0.8

#### (6) Transportation Mode

Overall, truck is the major means for domestic transportation of the industrial cargo. In case of foreign trade, more than 30% of cargo is transported by marine route. Concerning Free Zones, a ratio of marine transportation is less than those of OIA, SSIE and private establishments. Table 2.4.32 shows distributions of cargo transportation by type of industrial activity.

**TABLE 2.4.32 Transport Share by Mode and Type of Industry**

	Domestic Trade				Foreign Trade			
	OIA SSIE	Free Zone	Private	Total	OIA SSIE	Free Zone	Private	Total
<b>Raw Material</b>	%	%	%	%	%	%	%	%
Marine	6	3	10	7	33	0	55	32
Truck	92	36	90	81	67	65	33	57
Railway	2	57	0	11	1	36	1	8
Air	0	4	0	1	0	0	11	3
<b>Products</b>	%	%	%	%	%	%	%	%
Marine	3	5	8	5	31	25	51	36
Truck	94	88	90	92	68	72	44	61
Railway	3	7	2	3	1	3	0	1
Air	0	0	0	0	0	0	6	2



## 2.5 Governmental Budget

### 2.5.1 National budget

Governmental Consolidated budget from 1992 to 1996 is shown in Table 2.5.1. After the economic crises in 1994, urgent stabilization program, including the raise in prices of products of state enterprises, temporary tax increase, reduction of increase amount of governmental official wages, reduction of subsidy for state enterprises and of public investments, has improved the situation of budgetary balance and the deficit in the primary balance has disappeared since 1994. However, due to an increase in interest payments, deficit in the general balance has increased again and amounts to 861 trillion TL., which is 32% of the expected revenues, in the budget program of 1996.

TABLE 2.5.1 Consolidated Budget (1992-1996)										trillion TL.
	1992		1993		1994		1995		1996	
	actual	%	actual	%	actual	%	actual	program	%	
<b>Revenues</b>	<b>178.1</b>	<b>100</b>	<b>357.3</b>	<b>100</b>	<b>751.6</b>	<b>100</b>	<b>1,404.1</b>	<b>100</b>	<b>2,650.0</b>	<b>100</b>
1. Tax Revenues	141.6	80	264.3	74	587.7	78	1,085.4	77	2,073.0	78
2. Non-Tax Revenues	7.7	4	17.6	5	48.4	6	79.0	6	280.0	11
3. Special Revenues and Funds	24.9	14	68.9	19	106.4	14	217.8	16	287.0	11
4. Annexed Budget Revenues	3.9	2	6.5	2	9.1	1	21.9	2	10.0	0
<b>Total Expenditures</b>	<b>225.4</b>	<b>127</b>	<b>490.4</b>	<b>137</b>	<b>902.5</b>	<b>120</b>	<b>1,720.6</b>	<b>123</b>	<b>3,511.0</b>	<b>132</b>
Non-Interest Expenditures	185.1	104	373.9	105	604.2	80	1,144.5	82	2,215.6	84
1. Personnel	94.1	53	169.5	47	273.1	36	502.7	36	910.0	34
2. Other Current	20.4	11	35.9	10	74.2	10	142.5	10	302.7	11
3. Investment	32.7	18	57.6	16	77.0	10	102.3	7	238.7	9
4. Transfer to SEE's	5.9	3	25.9	7	21.0	3	45.4	3	47.5	2
5. Other Transfers	32.0	18	85.0	24	158.9	21	351.6	25	716.7	27
<b>Primary Balance</b>	<b>-7.0</b>	<b>-4</b>	<b>-16.6</b>	<b>-5</b>	<b>147.4</b>	<b>20</b>	<b>259.6</b>	<b>18</b>	<b>434.4</b>	<b>16</b>
Interest Payments	40.3	23	116.5	33	298.3	40	576.1	41	1,295.4	49
<b>General Balance</b>	<b>-47.3</b>	<b>-27</b>	<b>-133.1</b>	<b>-37</b>	<b>-150.9</b>	<b>-20</b>	<b>-316.5</b>	<b>-23</b>	<b>-861.0</b>	<b>-32</b>

Source: Ministry of Finance

### 2.5.2 Port-related Investments

Port-related investments from 1989 to 1996 are shown in Table 2.5.2. The share of investments in national budget has generally decreased from 0.12% in 1990 to 0.064% in 1995. The share of port investments in port-related investments has also generally decreased from 56% in 1989 to 34% in 1995, while the share of fisherman shelter and marina investments in port-related investments has increased. More detailed breakdown for port investments in 1995 and 1996 is shown in Table 2.5.3.

TABLE 2.5.2 Port-related Investment by DLH

TYPE	1989		1990		1991		1992		1993		1994		1995		1996	
	Expen.	%	Expen.	%	Expen.	%	Expen.	%	Expen.	%	Expen.	%	Expen.	%	KB*	%
Fishermen																
Shelter	18,390	35	24,443	30	47,886	31	62,374	32	121,559	38	274,966	44	428,834	39	2,174,450	43
Ports	29,262	56	52,118	64	92,500	59	101,372	52	145,478	45	220,101	35	380,076	34	1,841,350	36
Marinas	2,940	6	2,628	3	10,155	6	18,042	9	33,083	10	65,725	11	298,040	27	1,040,100	21
Ship																
Building																
Plants(*)	1,729	3	2,391	3	6,100	4	14,592	7	19,917	6	61,900	10	0	0	0	0
TOTAL	52,321	100	81,580	100	156,641	100	196,380	100	320,037	100	622,692	100	1,106,950	100	5,055,900	100

Source: Ministry of Finance

Note: (\*) Tuzala and S\*rmene \*amburnu Tersaneleri

Expen : Expenditure

KB\* : Deducted Initial Payment

**TABLE 2.5.3 Port-related Investment by DLII (1995-1996)**

NAME OF THE PROJECT	LOCATION (Province, Administrative District)	K B O	1995		1996 KBO
			Y S O	Expenditure	
<b>A. Study and Project</b>	<b>TOTAL</b>	<b>22,922</b>	<b>22,922</b>	<b>31,997</b>	<b>20,185</b>
Study And Project	Miscellaneous	4,775	3,775	0	9,500
Filyos Port Study and Zonguldak Port Operation	Zonguldak	1,242	1,242	0	3,085
Mersin Port Development Study	Mersin	6,112	6,112	3,907	0
North Aegean Port Study and E I A Research	Miscellaneous	3,343	3,343	437	4,750
Derince Port Container Term. Study and EIA	Kocaeli	2,006	2,006	1,918	0
Iskenderun Port Con. Term. Study and EIA Research	Iskenderun- Hatay	2,865	3,865	3,095	0
Turkish Coasts Wave Atlas Project	Miscellaneous	2,579	2,579	790	2,850
Study, Project and E I A Researches	Miscellaneous	0	0	21,850	
<b>B. Continuing Projects</b>	<b>TOTAL</b>	<b>341,890</b>	<b>434,887</b>	<b>352,686</b>	<b>1,638,753</b>
Gokceada ( Ugurlukoy ) Feery Pier	Canakkale	3,051	51	0	0
Bartın Berth Extension	Bartın	26,740	13,568	13,567	0
Fatsa Pier Extension	Fatsa	16,235	1	0	29,500
Marmaris Coast Fortification	Mugla	16,044	16,044	5,600	19,000
Cargo Area (Wood House)	Canakkale	2,865	2,865	147	9,500
Mersin Port Expansion	Mersin	42,975	27,563	23,304	120,000
Haydarpasa Port Expansion	Istanbul	19,100	44,100	39,753	52,184
Gulf Dredging	Izmir	1	1	0	1
Hopa Port Maintenance and Breakwater Extension	Artvin	33,425	43,425	43,388	85,250
Izmir Port Expansion II. Part Construction	Izmir	1	1	0	1
Rize Port Expansion	Rize	23,875	23,875	23,692	58,500
Sinop Ferry Pier Extension and Operation Building and Area Filling Construction	Sinop	20,055	20,055	16,363	48,000
Avsa Island Tukeli Village Ferry Pier	Balikesir	4,775	4,775	3,662	58,250
Gokceada Kuzu Port Breakwater Maintenance	Canakkale	14,325	17,325	17,309	86,500
Dredging Equipment Purchasing, Maintenance, and Repair	Miscellaneous	1	1	0	1
Tatvan Coast Facility Construction	Bitlis	19,100	27,100	25,996	68,107
Inebolu Port Capacity Increasing	Kastamonu	9,550	9,550	458	38,000
Canakkale Port Construction	Canakkale	11,460	25,197	24,288	146,000
Giresun Port Expansion and Repair	Giresun	9,550	1	0	51,800
Iskenderun Port Container Terminal	Isken. - Hatay	1	1	0	1
Derince Port Container Terminal	Kocaeli	1	1	0	1
Research Center Facilities	Ankara	28,650	50,230	50,228	210,850
Erdek Ferry Pier and Tug Boat Space	Balikesir	5,730	13,640	13,600	48,000
Ayvalik Ferry Pier	Balikesir	5,730	18,145	16,998	59,250
Marmara Ad. Dist. Saraylar Pier and Berth	Balikesir	955	60	0	38,500
Of - Eskipazar Coast Facility	Trabzon	955	955	762	14,250
Arakli Coast Facility	Trabzon	955	40,505	30,645	33,250
Catalzeytin Coast Facility	Kastamonu	4,775	5,253	0	28,500
Yassiada Ferry Pier and Breakwater Construction	Istanbul	955	300	252	4
Regional Directorate Additional Facilities	Miscellaneous	2,674	2,674	2,674	9,500
Dredging Machinery and Equipment Manufacturing	Miscellaneous	6,685	2,601	0	4,750
Bartın Port River Bed Dredging	Bartın	3,056	1	0	1,900
Ordu Port	Ordu	0	20	0	1
Mugla, Milas, Gulluk Vessel Berthing Pier	Mugla	0	10	0	15,000
Coast Facility Between Samsun Port and Education Faculty	Samsun	0	4,775	0	24,250
Findikli Coast Facility	Rize	0	15	0	29,500
Pazar Coast Facility	Rize	0	10	0	19,500
Cayeli Coast Facility	Rize	0	239	0	29,500

NAME OF THE PROJECT	LOCATION (Province, Administrative District)	K B O	1995		1996	
			Y S O	Expenditure	KBO	
Armutlu Kapakli Village Pier Extension		0	0	0	54,250	
Trabzon Yomra Coast Facility	Trabzon	0	1,910	0	20,000	
Abana Coast Facility	Kastamonu	0	478	0	20,000	
Inebolu Coast Facility	Kastamonu	0	478	0	20,000	
Rize Bucak Mekiskir Breakwater Extension	Rize	0	2,240	0	1	
Gelibolu Port	Canakkale	0	955	0	1	
Balikesir - Erdek Narlikoyu Coast Facility	Balikesir	0	5	0	30,000	
Sinop Port	Sinop	0	40	0	1	
Inebolu Port Expansion II. Part Construction	Kastamonu	0	3,820	0	1,000	
2 x 500 m3 Pontoon Refilling Construction	Miscellaneous	7,640	7,640	0	4,750	
Yesilkoy Sea Bus Pier	Istanbul	0	0	0	26,900	
Gemlik Kapali Village Pier Extension	Bursa	0	1,910	0	0	
<b>C. New Projects</b>	<b>TOTAL</b>	<b>33,425</b>	<b>26,745</b>	<b>17,244</b>	<b>16,562</b>	
Technical Control	Miscellaneous	16,235	16,235	11,009	23,750	
Completion of the Half Finished Works	Miscellaneous	6,685	5	0	9,500	
Maintenance, Dredging, and Repair of the Buildings	Miscellaneous	3,820	3,820	2,105	9,982	
Machinery and Equipment Purchasing and Maintenance and Repair		6,685	6,685	4,130	9,500	
Vehicle Purchasing		0	0	0	1,330	
Van Ferry Pier Repair and Restoration	Van	0	0	0	53,250	
Tatvan Ferry Pier Repair and Restoration	Bitlis	0	0	0	53,250	
<b>TOTAL</b>	<b>( A + B + C )</b>	<b>398,235</b>	<b>484,554</b>	<b>380,077</b>	<b>1,841,350</b>	

Note: K B O : DEDUCTED INITIAL PAYMENT

Y S O : YEAR END PAYMENT