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European Commission  
Directorate-General for Agriculture

*Agricultural Situation in the Candidate Countries*

**Country Report**

**Turkey**

*November 2003*

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## **Foreword**

This report is one of a series of short reports aimed at providing key statistical and economic information on the agricultural situation in each Candidate Country. It mainly attempts to provide an objective analysis of the developments and situation in the Turkish agricultural sector.

The report has been prepared within the Directorate General for Agriculture by Susanna Perachino and Asbjorn Veidal and is mainly based on statistical information from Eurostat, OECD and State Institute of Statistics (SIS) in Turkey, as available in October 2003.

Despite the efforts to create a coherent, reliable and up to date set of data and information, all figures should be interpreted with care. This prevents a full comparability of data with that for the European Union as well as with Accession and other Candidate Countries. The views expressed in the report do not necessarily correspond to those of the European Commission.

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## List of acronyms and abbreviations

|          |  |
|----------|--|
| AC       | Accession Countries  |
| AWU      | Annual Work Unit   |
| bio      | billion  |
| CAP      | Common Agricultural Policy                                   |
| CC       | Candidate Countries  |
| CEC      | Commission of the European Communities                       |
| CIS      | Commonwealth of Independent States                           |
| CMO      | Common Market Organisation                                   |
| COP      | Cereals – Oilseeds – Pulses                                  |
| CSE      | Consumer Support Estimate                                    |
| DG AGRI  | European Commission, Directorate-General for Agriculture     |
| EAA      | Economic Accounts for Agriculture                            |
| EAGGF    | European Agricultural Guidance and Guarantee Fund            |
| ESU      | Economic Size Unit   |
| EU       | European Union   |
| EUR      | Euro currency  |
| Eurostat | Statistical Office of the European Communities               |
| GDP      | Gross Domestic Product                                       |
| GSSE     | General Services Support Estimate                            |
| GVA      | Gross Value Added  |
| ha       | hectare  |
| kg       | kilogram   |
| LFA      | Less Favoured Areas  |
| mio      | million  |
| MS       | Member State   |
| NUTS     | Nomenclature of Statistical Territorial Units                |
| NVA      | Net Value Added  |
| OECD     | Organisation for Economic Co-operation and Development       |
| PPS      | Purchasing Power Standard                                    |
| PSE      | Producer Support Estimate                                    |
| SIS      | State Institute of Statistics Prime Ministry Republic Turkey |
| t        | tonne  |
| TSE      | Total Support Estimate                                       |
| UAA      | Utilised Agricultural Area                                   |
| USA      | United States of America                                     |
| USD      | United States Dollar   |
| USDA     | United States Department of Agriculture                      |



## **Executive Summary**

Turkey is the largest among the Candidate and Accession countries. It has a population of 68.6 mio with a per capita income of 5 500 EUR that represents 23% of the EU-15 average and the lowest income level of the Accession and Candidate Countries.

The most densely populated towns are located in the western regions and skilfully in front of the sea like Istanbul on the Black Sea and Izmir on the Aegean Sea (Map 1). The growth of the whole population is higher than in the EU on average. A significant migration to urban areas has taken place.

As far as farm structure is concerned, small size classes (0-5 ha) cover over 65% of the holdings. 94% of the farm holdings are smaller than 20 ha. A relatively high number of larger and more specialised farms are located in the Aegean and Mediterranean regions of Turkey.

The average farm in Turkey is significantly smaller than in the average EU farm. Structure and specialisation of farms correspond to the social and economic conditions in rural areas as well as to climatic conditions.

Subsistence and semi-subsistence farming is an important characteristic of Turkish agriculture, which is similar to the situation in regions in the EU-25 as well as in Bulgaria and Romania. This type of farms is characterised by very low productivity, high hidden unemployment and low competitiveness. These farms, however, are crucial for providing income security and livelihood to the majority of the rural population in Turkey.

Subsistence and semi-subsistence farms are difficult to reach with traditional market and price policies, because they only market a minor part of their production with a very limited regional scope. More important for the development of these farms is the possibility to gain income from other sources than agriculture. The development of this important segment of Turkish farms depends therefore on the social and economic conditions in rural areas.

Much of the future competitiveness and prospects of agriculture in an integrating interregional framework would depend on the structural changes in rural economies in Turkey.

Climatic and land conditions contribute to the development of fruit and vegetables production in the two coastal regions while predominantly rural and mountainous areas specialise on livestock and animal products. Crop production saw a significant increase in the last decade.

With an average wheat harvest of 20 mio t per year, Turkey's production amounts to approximately 20% of the total EU-15 and 15% of the EU-25 wheat harvest.

Turkey exports about 4.2 bio EUR and imports about 2.9 bio EUR worth of agricultural and food products. Turkey's main trade partners are the EU and the Accession and Candidate Countries. Turkey has a comfortable trade surplus with the EU-15 mainly due to exports of edible fruits & nuts, preparations of fruit and vegetables as well as tobacco and tobacco products. Turkey has also important trade relations and a trade surplus with countries in the Mediterranean basin and the Gulf region.

The most important trade partner on the import side is the USA in particular for tobacco and tobacco products, cereals and oilseeds. Turkey has an agricultural trade deficit of almost 600 mio EUR with the USA.

## 1 General overview

With an area of 769 604 km<sup>2</sup> Turkey is the largest country among the Candidate Countries. This size is comparable to that of France and the United Kingdom together. Turkey's area represents 41% of the thirteen Accession and Candidate Countries and around 20% of the EU-25 surface.

In the year 2002, Turkey's population counted 68.6 mio persons and represents the largest of the Accession and Candidate Countries, followed by Poland with 38.6 mio. Turkey would be the second biggest country by population within an EU-28, after Germany (82 mio) but greater than United Kingdom (60 mio), France (59 mio) and Italy (58 mio). The Turkish population has a higher growth rate than that in the EU with a different age structure compared to the ageing societies in most EU Member States. In fact, 26% of the total population is under 15 and 6% is over 65.

Turkey is the largest economy of the Accession and Candidate Countries representing 28% of their combined GDP (Table 1). As it stands currently, Turkey's share in GDP of the EU-28 would be 4%. The income per capita measured in GDP at Purchasing Power Standard would reach 23% of the EU-15. The income per capita of 5 500 EUR (PPS) is the lowest among the Candidate Countries.

**Table 1 Turkey – Area, population and GDP in 2002 compared with Candidate Countries and EU-15**

|                             | Total Area<br>km <sup>2</sup> | Population<br>end of the<br>period (000) | Density<br>inhabitant/km <sup>2</sup> | GDP in PPS (EUR) |                |
|-----------------------------|-------------------------------|--|---------------------------------------|------------------|----------------|
|                             |                               |  |                                       | Mio PPS          | per capita PPS |
| <b>Turkey</b>               | <b>769 604</b>                | <b>68 612</b>                            | <b>89</b>                             | <b>383 332</b>   | <b>5 500</b>   |
| EU-15                       | 3 191 120                     | 377 198                                  | 118                                   | 9 164 519        | 24 010         |
| AC-10                       | 738 569                       | 74 865                                   | 101                                   | 830 508          | 11 140         |
| AC-10 + CC-2                | 1 087 954                     | 105 225                                  | 97                                    | 1 009 101        | 9 630          |
| AC-10 + CC-3                | 1 857 558                     | 172 837                                  | 93                                    | 1 392 433        | 7 980          |
| Turkey in % of EU-15        | 24%                           | 18%                                      | 76%                                   | 4%               | 23%            |
| Turkey in % of AC-10        | 104%                          | 92%                                      | 88%                                   | 46%              | 49%            |
| Turkey in % of AC-10 + CC-2 | 71%                           | 65%                                      | 92%                                   | 38%              | 57%            |
| Turkey in % of AC-10 + CC-3 | 41%                           | 40%                                      | 96%                                   | 28%              | 69%            |

- AC-10: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, Slovenia.
- CC-2: Bulgaria, Romania.
- CC-3: Turkey and CC-2.

Source: Eurostat.

## 2 Economic Development

### 2.1 General economy

The long term average real annual GDP growth between 1991 and 2001 was 2.7%. This rate is close to the average GDP growth of OECD countries. A serious banking and currency crisis in late 2000 and early 2001 caused a major weakness of economic growth. The currency floated on February 2001 and fell by almost two-thirds against both the Euro (Graph 1) and the Dollar. A new programme was launched in 2002 in the form of an economic stabilisation

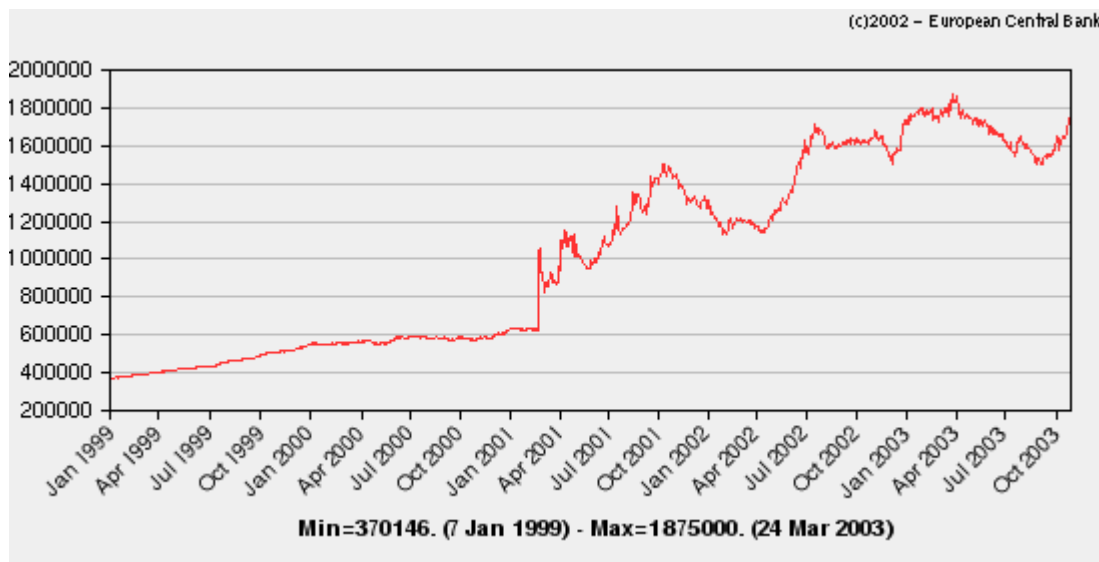
programme that consists of a banking reform, major fiscal retrenchment and measures to improve foreign direct investments.

Due to the crisis, the real GDP growth rate moved from 7.4% to -7.5% between 2000 and 2001; nevertheless in 2002 it reached again 7.8%. The European Commission now forecasts accelerating growth by 4.5% in 2004, although the OECD projections show a slightly less optimistic return to positive growth. These forecasts depend on the stabilisation and restructuring efforts in Turkey as well as on the global economic situation.

The annual average inflation rate in the period 1998 till 2002 varied between 85% and 48%, which is the highest rate in the Accession and Candidate Countries. The unemployment rate of Turkey in the period of 1998 to 2002 has been between 6.8% and 10.4% of the labour force (Table 2).

As far as medium-term perspectives are concerned, the inflation rate is expected to reach 26.4% in 2004. Nevertheless, in 2001 the Turkish Central Bank indicated its intention to introduce official inflation targets and applied a strict monetary policy via targeting base money growth.

**Graph 1 Turkish Lira : daily quotations against Euro January 1999-October 2003**



Source: European Central Bank.

**Table 2 Main Economic Trend**

|                             |          | 1998 | 1999 | 2000 | 2001 | 2002 | 2003     | 2004     |
|-----------------------------|----------|------|------|------|------|------|----------|----------|
|                             |          |      |      |      |      |      | forecast | forecast |
| Real GDP growth rate EU-15  | %        | 2,9  | 2,8  | 3,5  | 1,6  | 1,1  | 1,2      | 2,3      |
| Real GDP growth rate Turkey | %        | 3,1  | -4,7 | 7,4  | -7,5 | 7,8  | 3,7      | 4,5      |
| Inflation rate              |          |      |      |      |      |      |          |          |
| Annual average (a)          | %        | 84,9 | 64,2 | 57,3 | 57,6 | 48,2 |          |          |
| Unemployment rate           | % labour | 6,8  | 7,7  | 6,6  | 8,5  | 10,4 |          |          |

(a) Inflation rate at consumer price index not yet harmonised.

Sources: Eurostat, SIS.

## **2.2 Agriculture in the economy**

In terms of employment, agriculture is the most important sector in the Turkish economy. Its contribution to total GDP makes it also one of the most important sectors. Since 1980, however, the share of agriculture in GDP has declined from 20% to 13.6% in 2000 and 11.5% in 2002. This indicates an increasing importance of the industrial sector since the early 1990s.

The gross value added of agricultural sector (GVA at constant prices) grew by 3.9% in the year 2000. In that year, agriculture benefited from a good situation for cereals, fruit and vegetables.

Agriculture is an important contributor to foreign trade as well and supplies 14% of total exports and accounts for 6% of total imports. The EU-15 is the main importer of Turkish agricultural products with 1.8 bio EUR on average over the 1999-2001 period (Annex IV).

## **3 Farm structure**

### **3.1 Agricultural labour**

An increasing urbanisation of Turkey has led to a decline of the rural population from 61.5% in 1970 to 34.2% in 2002. Since 1985 more people have lived in urban regions than in rural areas (Table 3).

In the nineties, agriculture, hunting, forestry and fishing employed on average 42% of total labour, equivalent to some 8 mio people.

In the latest years the combination of severe factors led to an important decrease of the labour force in the agricultural sector which now represents 33.2%<sup>1</sup> of the whole labour force, equivalent to some 6.7 mio people in 2002. The Accession Countries employ about 3.7 mio people in agriculture, while in the EU-15 6.3 mio people are active in agriculture.

On the one hand, improved economic conditions and restructuring phenomena provoked a slight shift of labour from agriculture to manufacturing and tourism (wholesale, retail trade, restaurants and hotels). On the other hand, various changes in the Household Labour Force Survey (HLFS) introduced in 2000 contributed to some changes in the statistics.

The most relevant changes concern the application frequency (monthly), sample size, estimation dimension, questionnaire of HLFS as well as the age range of the population covered which is now 15 years old and over instead of 12 years old and over. Given that the active labour force rate is higher in the rural areas than in the urban ones and that 26% of the total population is under 15, it seems evident that the new methodology had some influence on the latest statistics.

Nevertheless, agriculture is still the most important provider of employment in the Turkish economy. Agriculture is by far a more important contributor to total national employment in Turkey than in the EU-15 and in most Candidate Countries, except for Romania.

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<sup>1</sup> The rate has decreased by 20% from the nineties to the years 2000-2002. That is partly because of the fact that in the year 2000 some important aspects of Household Labour Force Survey (HLFS) have been changed in order to improve and harmonise the Labour Market Information.

**Table 3 Urban and Rural Population according to Census**

| Years | POPULATION (Mio inhabitants) |       |        |       | Total  |
|-------|------------------------------|-------|--------|-------|--------|
|       | Urban                        |       | Rural  |       |        |
| 1927  | 3.306                        | 24.2% | 10.342 | 75.8% | 13.648 |
| 1935  | 3.803                        | 23.5% | 12.355 | 76.5% | 16.158 |
| 1940  | 4.346                        | 24.4% | 13.475 | 75.6% | 17.821 |
| 1945  | 4.687                        | 24.9% | 14.103 | 75.1% | 18.790 |
| 1950  | 5.244                        | 25.0% | 15.703 | 75.0% | 20.947 |
| 1955  | 6.927                        | 28.8% | 17.137 | 71.2% | 24.065 |
| 1960  | 8.860                        | 31.9% | 18.895 | 68.1% | 27.755 |
| 1965  | 10.806                       | 34.4% | 20.586 | 65.6% | 31.391 |
| 1970  | 13.691                       | 38.5% | 21.914 | 61.5% | 35.605 |
| 1975  | 16.869                       | 41.8% | 23.479 | 58.2% | 40.348 |
| 1980  | 19.645                       | 43.9% | 25.092 | 56.1% | 44.737 |
| 1985  | 26.866                       | 53.0% | 23.799 | 47.0% | 50.664 |
| 1990  | 33.326                       | 59.0% | 23.147 | 41.0% | 56.473 |
| 1995  | 38.336                       | 62.1% | 23.401 | 37.9% | 61.737 |
| 2000  | 43.647                       | 64.7% | 23.773 | 35.3% | 67.420 |
| 2001  | 44.726                       | 65.3% | 23.803 | 34.7% | 68.529 |
| 2002  | 45.808                       | 65.8% | 23.818 | 34.2% | 69.626 |

Source: SIS.

Recent data of the SIS indicates that the share of women in the agricultural work force increased to 43.2% in 2002 from 39.1% in 2000. Especially in the age groups below 50, women represent the majority of employment in agriculture with 56.2% in the 20-24 year old group and 52.5% in the 45-49 age groups.

This increasing urbanisation, the share and changing composition of employment in agriculture has set the pace and direction of structural change in Turkish agriculture. Despite structural change in the Turkish economy, agriculture is still characterised by hidden unemployment, which is an enormous challenge in the economic development.

### 3.2 Agricultural holdings

The provisional results of the agricultural census in 2001<sup>2</sup> recorded 3 mio agricultural holdings in Turkey as compared to 6.8 mio in the EU-15 in 1999/2000 and approximately 6 mio in the AC-10. The average farm size is around 6 ha in 2001, compared to an average around 19 ha in the EU in 1999/2000. About 65% of them have less than 5 ha land and 83% less than 10 ha (Table 4). About 6% of the holdings have a size larger than 20 ha. Over the ten years between 1991 and 2001, the total number of Turkish holdings decreased by 25%; that seems to be in line with the fall in the agricultural employment as well as restructuring phenomena and surveys' harmonisation.

As far as the 1991's census results are concerned, mixed cropping-livestock holdings constitute the greatest share of all farm types with about 1 million holdings (25.6%).

<sup>2</sup> Only preliminary statistical information had been available at the date of publication.

Field cropping with 931 460 holdings (22.9%) is the second most important specialisation, followed by specialist grazing livestock with 847 310 holdings (20.9%) and specialist permanent crops with 535 185 holdings (13.2%).

**Table 4 Holdings by size classes (1 000 holdings)**

| Size classes   | 1991         |               | 2001         |               |
|----------------|--------------|---------------|--------------|---------------|
|                | number       | % of total    | number       | % of total    |
| <b>Total</b>   | <b>4 060</b> | <b>100,0%</b> | <b>3 022</b> | <b>100,0%</b> |
| 0 - 2 ha       | 1 454        | 35,8%         | 1 008        | 33,4%         |
| 2 - 5 ha       | 1 260        | 31,0%         | 951          | 31,5%         |
| 5 - 10 ha      | 722          | 17,8%         | 560          | 18,5%         |
| 10 - 20 ha     | 399          | 9,8%          | 327          | 10,8%         |
| 20 - 50 ha     | 185          | 4,6%          | 154          | 5,1%          |
| 50 ha and more | 38           | 0,9%          | 22           | 0,7%          |

Source: SIS.

**Table 5 Number of agricultural holdings by region and ESU in 1991 (1 000 holdings)**

|               | Total        | 0-2          | 2-4        | 4-6        | 6-8       | 8-12      | 12-16     | 16-40     | 40-100   | >100      |
|---------------|--------------|--------------|------------|------------|-----------|-----------|-----------|-----------|----------|-----------|
| <b>Turkey</b> | <b>4 060</b> | <b>2 956</b> | <b>726</b> | <b>198</b> | <b>71</b> | <b>45</b> | <b>14</b> | <b>13</b> | <b>2</b> | <b>34</b> |
| Central-North | 484          | 351          | 93         | 26         | 8         | 5         | 1         | 0         | 0        | 0         |
| Aegean        | 798          | 557          | 165        | 43         | 16        | 8         | 2         | 2         | 0        | 4         |
| Marmara       | 330          | 189          | 91         | 31         | 11        | 6         | 1         | 1         | 0        | 0         |
| Mediterranean | 474          | 315          | 83         | 24         | 9         | 8         | 2         | 3         | 1        | 29        |
| North-East    | 236          | 190          | 35         | 9          | 2         | 0         | 0         | 0         | 0        | 0         |
| South-East    | 360          | 261          | 59         | 16         | 7         | 9         | 3         | 4         | 1        | 0         |
| Black-Sea     | 643          | 571          | 59         | 9          | 3         | 2         | 0         | 0         | 0        | 0         |
| Central-East  | 320          | 224          | 64         | 18         | 7         | 3         | 2         | 1         | 0        | 0         |
| Central-South | 413          | 298          | 77         | 23         | 8         | 5         | 2         | 1         | 0        | 0         |

Source: SIS.

**Table 6 Number of holdings by region and type of farming in 1991 (1 000 holdings)**

|               | Total        | Specialist  | Specialist              | Specialist      | Specialist        | Mixed          | Mixed               |
|---------------|--------------|-------------|-------------------------|-----------------|-------------------|----------------|---------------------|
|               |              | Field Crops | Specialist Horticulture | Permanent Crops | Grazing Livestock | Mixed Cropping | Crops and Livestock |
| <b>Turkey</b> | <b>4 060</b> | <b>931</b>  | <b>107</b>              | <b>535</b>      | <b>847</b>        | <b>599</b>     | <b>1 039</b>        |
| Central-North | 484          | 130         | 8                       | 26              | 101               | 63             | 156                 |
| Aegean        | 798          | 235         | 20                      | 149             | 107               | 130            | 157                 |
| Marmara       | 330          | 83          | 11                      | 49              | 48                | 50             | 89                  |
| Mediterranean | 474          | 109         | 44                      | 64              | 49                | 108            | 100                 |
| North-East    | 236          | 38          | 2                       | 6               | 120               | 14             | 57                  |
| South-East    | 360          | 93          | 2                       | 20              | 121               | 39             | 86                  |
| Black-Sea     | 643          | 60          | 11                      | 167             | 145               | 71             | 190                 |
| Central-East  | 320          | 57          | 2                       | 37              | 80                | 54             | 90                  |
| Central-South | 413          | 127         | 8                       | 17              | 75                | 71             | 115                 |

Source: SIS.

In Turkey, 35% out of the total agricultural holdings are located in Aegean and Black Sea regions as compared to about 15% in the eastern zones (Table 5).

A relatively higher number of larger and more specialised farms are located in the Aegean and Mediterranean regions (Table 6).

As a recent survey shows<sup>3</sup>, other economic sectors such as manufacturing are also characterised by small size units (50% of the productive units employs around 2-4 persons).

## **4 Agricultural production**

### **4.1 Value of agricultural production**

The value of agricultural production in 2000 amounted to 44.5 bio EUR. The major agricultural products in value are listed in Table 7.

Crops are the most important products with 55.8% of total value of agricultural production, split between cereals (11.6%), industrial crops such as sugar beet and tobacco (6.4%), vegetables (13.7%), fruits (17.4%) and other crops. Wheat is the most important single crop with 7.9% of total output value. Livestock production and animal products contribute with 24.9% and 19.3% of total value respectively.

Most of the agricultural production in Turkey originates from the coastal regions, with a certain importance of the Aegean and Mediterranean regions (see Map 2). Output in these two coastal regions is dominated by fruit and vegetables production, which corresponds well to the climatic conditions (see Maps 4,5,6,7) The proximity of these regions to the main Turkish towns as well as export markets contributes to a higher share of market oriented and intensive farms.

In the northern and eastern parts of Turkey the importance of livestock production is quite evident. The relatively low agricultural production potential of eastern regions is conditioned by the natural conditions such as lower rainfall<sup>4</sup>, lower temperature and higher altitudes. It also corresponds to the socio-economic conditions in rural areas as expressed by small-scale farming and subsistence production.

The regional distribution of production is explained in Graph 2. It shows that the southern-west regions produce 56% of all wheat in Turkey while Mid-Western Anatolia largely covers 43% of the barley output.

The industrial crops, mostly sugar beet, raw cotton and tobacco, amounted to 6.4% of total agricultural output in 2000 with 1147, 1119 and 578 mio EUR respectively. Around 70% of sugar beet output originates from Mid-Western Anatolia and the Western Black Sea areas.

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<sup>3</sup> European Foundation for the improvement of Living and Working Conditions carried out a questionnaire-based survey in 2002.

<sup>4</sup> The public South-Eastern Anatolia Project (GAP) has recently been launched in order to irrigate a large area of Turkey. The whole project should be completed by 2010 and should provide approximately 22% of Turkey's projected electricity requirements.

The Aegean region produces 51% of Turkey's tobacco. Cotton production is concentrated in South Eastern Anatolia with 45% of Turkey's production, followed by the Mediterranean with 22% and the Aegean region covering the rest.

Around 36% of the total vegetable output consists of tomatoes that are mainly cultivated on the whole coastline from Western Black Sea to Western Marmara and Mediterranean.

**Table 7 Agricultural output in 2000**

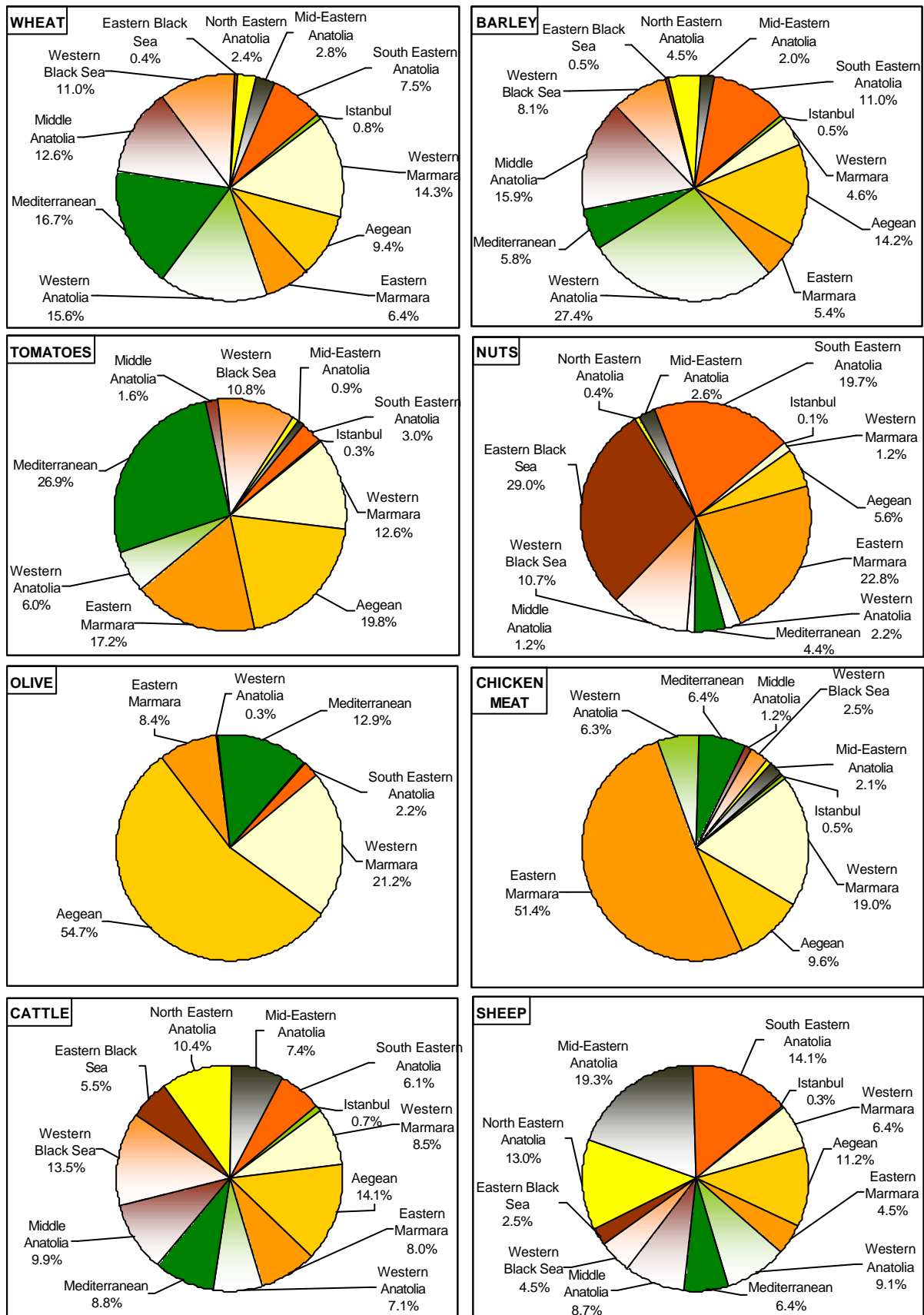
|                                 | Agricultural output |               |               |
|---------------------------------|---------------------|---------------|---------------|
|                                 | bio Turkish Lira    | mio EUR       | %             |
| <b>Total</b>                    | <b>26 724 351</b>   | <b>44 481</b> | <b>100,0%</b> |
| <b>Crop Output</b>              | <b>14 920 080</b>   | <b>24 834</b> | <b>55,8%</b>  |
| <b>Cereals</b>                  | 3 092 936           | 5 148         | 11,6%         |
| Wheat                           | 2 100 502           | 3 496         | 7,9%          |
| Barley                          | 645 117             | 1 074         | 2,4%          |
| Maize                           | 244 583             | 407           | 0,9%          |
| Rice                            | 54 687              | 91            | 0,2%          |
| Other cereals (rye, oats, etc.) | 48 046              | 80            | 0,2%          |
| <b>Industrial crops</b>         | 1 708 728           | 2 844         | 6,4%          |
| <b>Vegetables</b>               | 3 674 327           | 6 116         | 13,7%         |
| <b>Fruit</b>                    | 4 644 860           | 7 731         | 17,4%         |
| <b>Other crops</b>              | 1 799 229           | 2 995         | 6,7%          |
| <b>Livestock</b>                | <b>6 652 065</b>    | <b>11 072</b> | <b>24,9%</b>  |
| Sheep                           | 1 401 603           | 2 333         | 5,2%          |
| Cattle                          | 4 212 035           | 7 011         | 15,8%         |
| Hens                            | 650 068             | 1 082         | 2,4%          |
| Other livestock                 | 388 359             | 646           | 1,5%          |
| <b>Animal Products</b>          | <b>5 152 206</b>    | <b>8 576</b>  | <b>19,3%</b>  |
| Milk                            | 2 239 262           | 3 727         | 8,4%          |
| Meat                            | 1 388 298           | 2 311         | 5,2%          |
| Chicken meat                    | 631 650             | 1 051         | 2,4%          |
| Turkey meat                     | 26 546              | 44            | 0,1%          |
| Hen eggs                        | 600 886             | 1 000         | 2,2%          |
| Honey                           | 185 426             | 309           | 0,7%          |
| Other animal products           | 80 138              | 133           | 0,3%          |

Source: SIS.

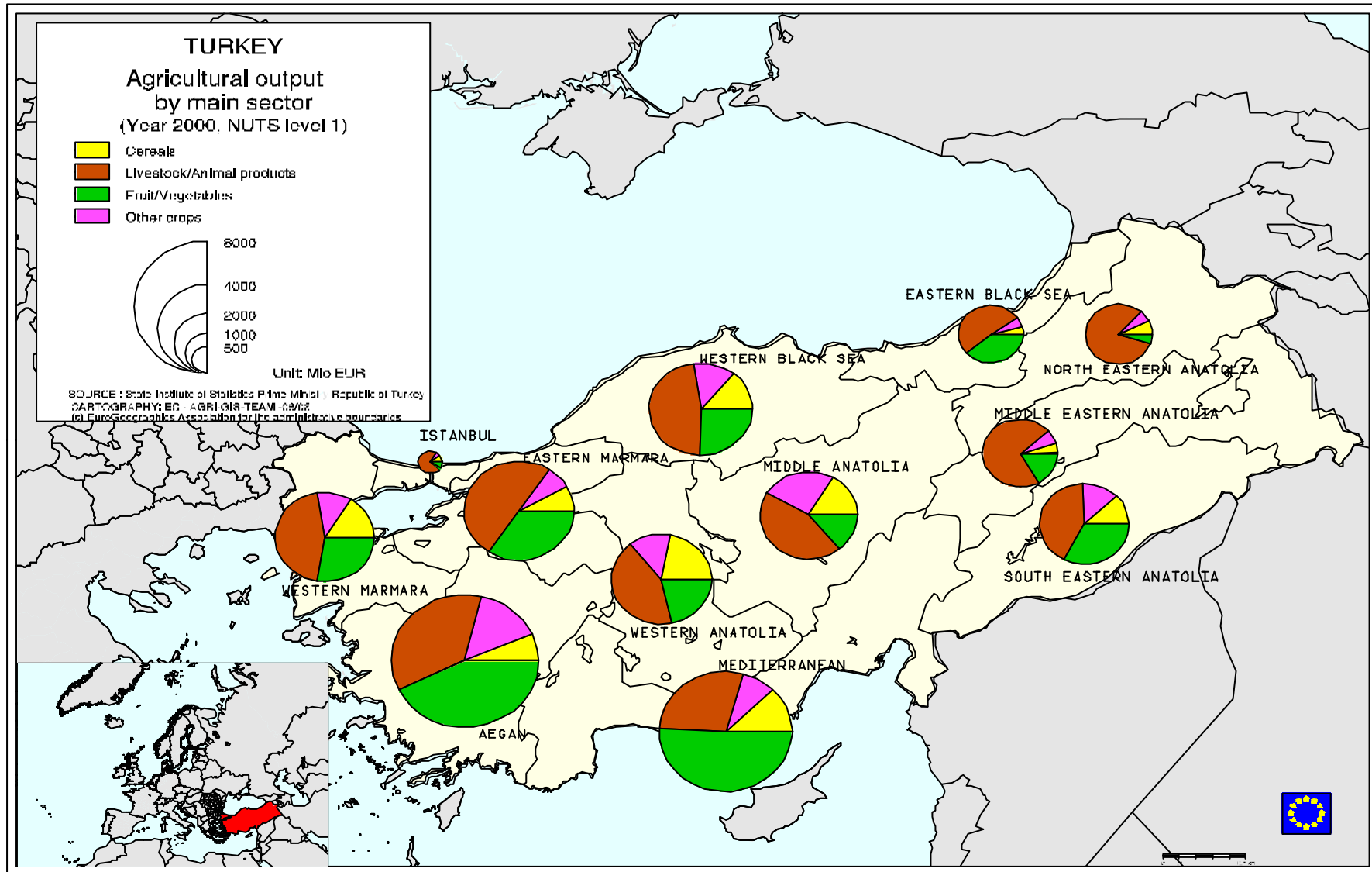
The output of olives and nuts amounted to 1527 and 1407 mio EUR respectively. Due to climatic conditions almost 80% of the olive production concentrate in the area of the western Mediterranean coast while the peripheries of the Black Sea regions and South Eastern Anatolia produce the majority of nuts. Turkey is one of the largest nut producers in the world.

Other fruit products such as grapes and citrus represented 20% and 9% respectively of the total sector output. Due to the mild climatic conditions in the Mediterranean region, around 90% of citrus products take place there while grapes are mainly cultivated in Aegean area with an output of 640 mio EUR followed by the South Eastern Anatolia with an output of 239 mio EUR.

**Graph 2 Regional share of output for the main products - 2000**



Source: SIS.



As Annex IV shows, edible fruits and nuts also play a remarkable role for export as they represent 29% of the total trade in agricultural products. In the trade sector, the EU-15 represents the largest importer of Turkish fruits and nuts with 774 mio EUR on average in the recent years.

As Graph 2 shows, cattle production is spread rather homogeneously over the whole Turkey. However, higher regional shares of milk production are located in the mountainous parts of northern Anatolia and in the southern Mediterranean areas.

Sheep was the second most important category of livestock production accounting for 20% of the total livestock output in 2000. About 46% of sheep production is concentrated in the extreme eastern zones of Anatolia where the mountains often reach 2000 meters and the minimum winter temperatures frequently approach 20°C below zero.

Chicken production is concentrated near urban centres, i.e. close to consumer markets: about 70% of the chicken production is located around Istanbul and in the surrounding of the most populated areas.

## **4.2 Crop Production**

The most important land use among crop production is wheat with an area of about 10 mio ha and a production of 20 mio t per year. No statistical data is available covering durum wheat production. However, the Turkish Field Crops Central Research Institute and the USDA estimate that durum wheat production is about 10% of the total wheat production, i.e. approximately 2 mio t of durum wheat are produced in Turkey.

The second most important crop in terms of area use is barley, followed by industrial crops and oilseeds. The total production area of cereals is about 13 mio ha out of a total of 18 mio ha of agricultural area (Graph 3).

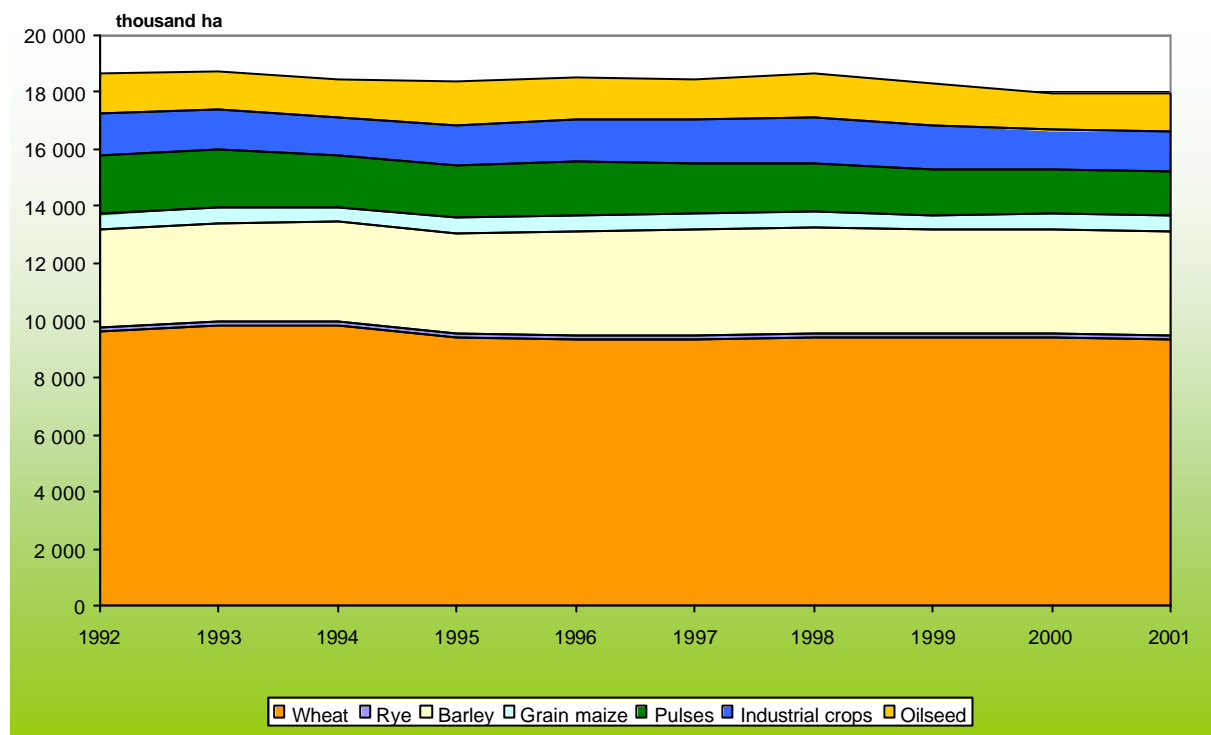
In 2001 about 5 mio ha of agricultural area could be considered as fallow land, which is an important form of land use especially in dry regions. While cereals area has been relatively stable during the period 1992 to 2001, the output varied owing to changing yield. Cereals yields dropped to less than 2 t/ha in 1994, their lowest level over the past decade.

Cereal yields reached their highest level in 2000 with 2.3 t/ha. However, these record yields only represented about 40% of the EU-15 average yields.

Graph 5 shows individual cereal yields in Turkey compared to yields of EU-15. Yields of wheat, rye, barley, oats and maize are in the range of 30% to 60% of comparable levels in the EU-15. Oats yields reach about 60% of the EU-15 average. Wheat, on the other hand, stands at around 30-35% of the EU-15 level.

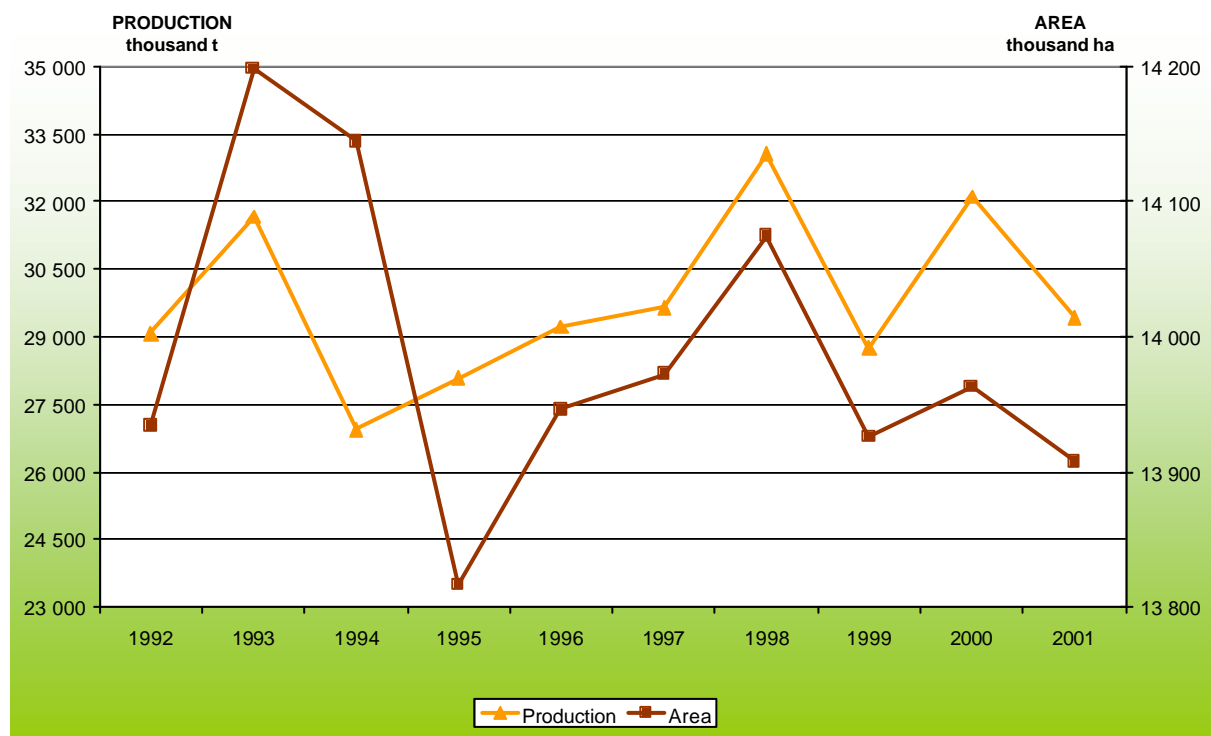
All in all, the total irrigated area represents 19% of the total arable land. In 2001, the Utilised Agricultural Area was 38 883 thousand ha, which corresponds to almost one third of the EU-15 UAA.

**Graph 3** Distribution of crops as Agricultural Area

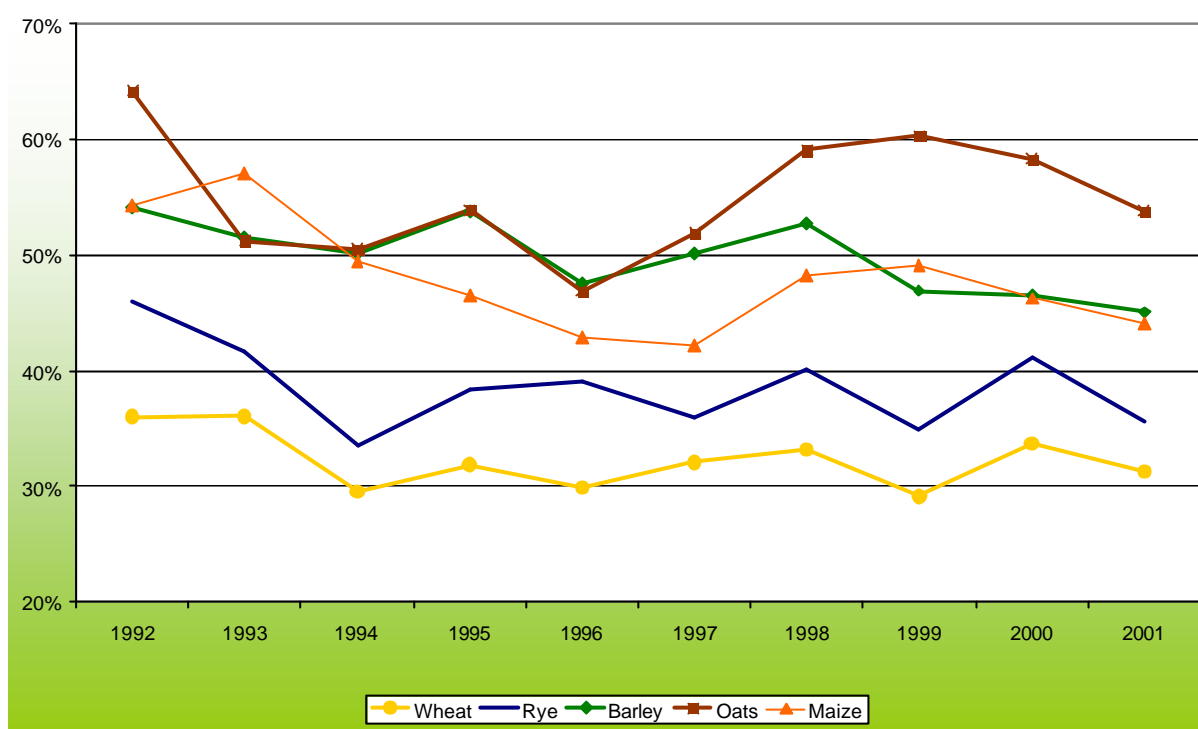


Source: SIS.

**Graph 4** Cereal Production and Area



Source: SIS.

**Graph 5 Turkish Cereal Yields compared to EU-15 = 100%**

Source: SIS.

### 4.3 Livestock Production

Livestock farming in Turkey is generally a small-scale family farm activity, carried out in the vast majority of cases as a sideline activity by arable farmers. According to the 2001 provisional Agricultural Census results, 67% of all agricultural holdings were involved in mixed farming such as crop production and animal husbandry, while 2% were specialised exclusively in animal husbandry.

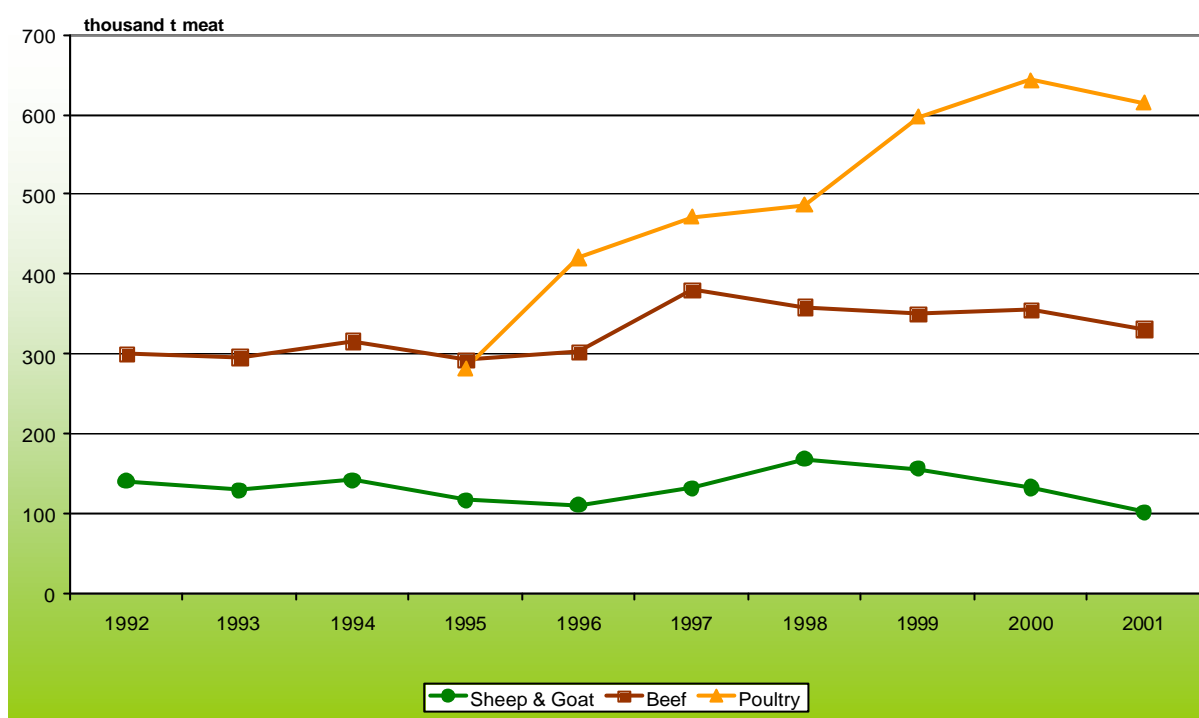
Natural conditions in Turkey are generally favourable for the raising of livestock, especially for grazing animals. However, natural and economic conditions have deteriorated due to the degradation of pastures, as well as increasing input costs and the lack of competitiveness as compared to imports.

**Table 8 Distribution of Livestock (1 000 head)**

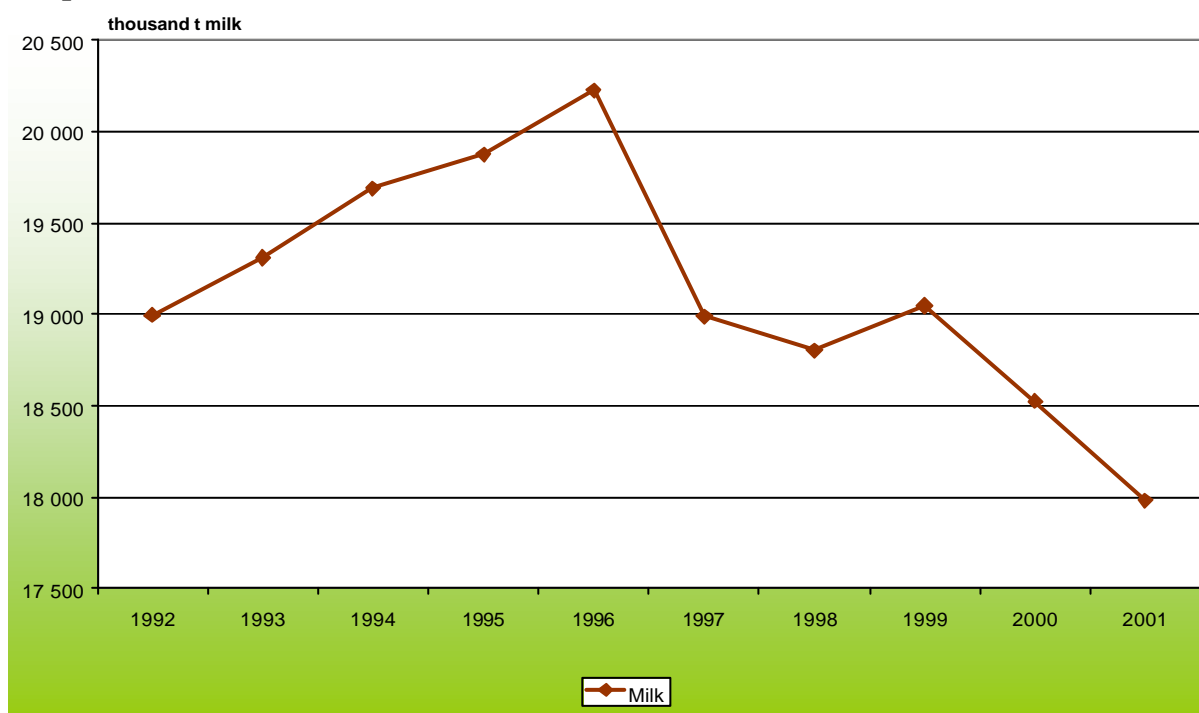
|        | 1982   | 1992   | 2001   |
|--------|--------|--------|--------|
| Sheep  | 49 636 | 39 416 | 26 972 |
| Cattle | 14 484 | 11 951 | 10 548 |
| Goats  | 18 213 | 16 116 | 7 022  |

Source: SIS.

In terms of quantity, the most important meat product in Turkey is poultry. Production has increased by 46% from 1995 to 2001 and reached 643 000 t in 2000. Beef production has been relatively stable from 1992 to 2001 at a level ranging between 300 000 and 380 000 t meat per year.

**Graph 6 Production: Beef, Poultry and Sheep&Goat Meat**

Source: SIS.

**Graph 7 Production: Milk**

Source: SIS.

Sheep&goat meat is of less importance, as Graph 6 shows. However, sheep and goats production is important for subsistence and semi-subsistence farms as well as for certain regions.

Milk production fluctuated strongly over the same period. It peaked in 1996 with more than 20 mio litres, but declined since then to less than 18 mio litres in 2001 (Graph 7). This represents a decrease of 12%.

## 4.4 Tobacco production

Tobacco is an important product for Turkey's agricultural sector with about 1.3% of total agricultural output and 20% of the total production of industrial crops. Despite the 13% production decline reached between 1999 and 2001 (against a 2.9% fall at world level over the same period), Turkish tobacco production still accounts for some 207.000 t as compared to 328.000 t for EU-15.

## 5 Foreign trade

Turkey established a Customs Union with the EU, which has been in force since January 1996 (Decision 1/95 of the EC-Turkey Association Council). The agricultural sector is not covered by the Customs Union, but has been the subject of preferential trade rules since the Association Agreement of 1963 (Decision 1/98 of the EC-Turkey Association Council). As a result, more than 70% of Turkish exports to the EU entered the single market without tariffs. Another 11% were only subject to reduced tariff rates.

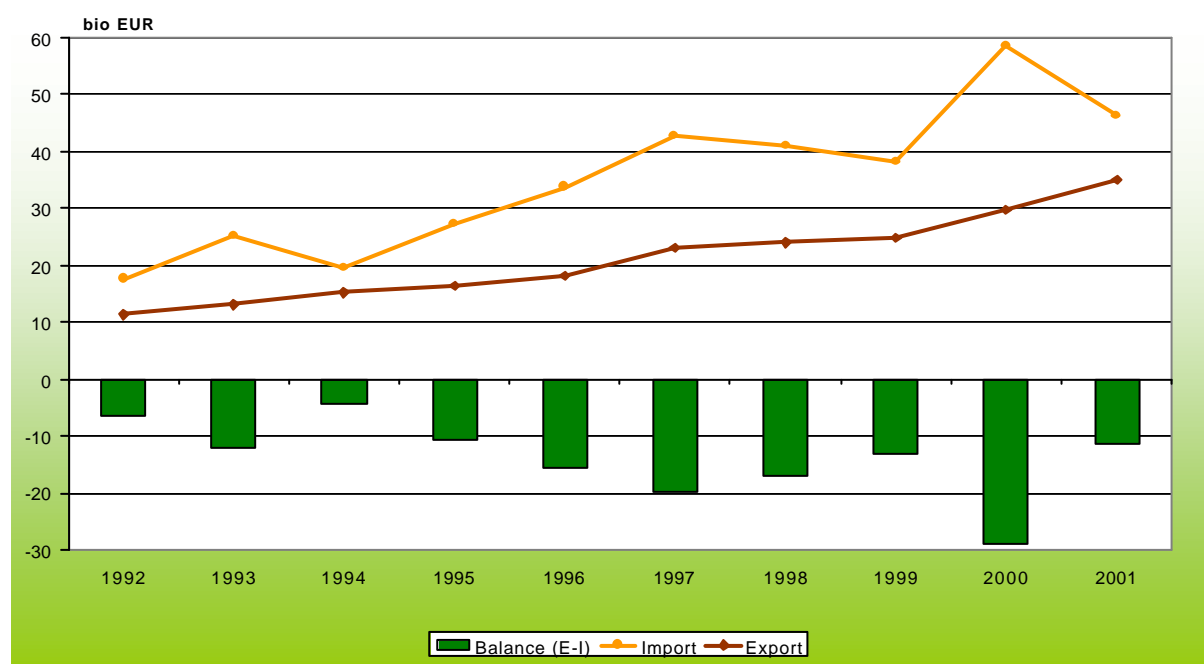
This preferential treatment of Turkish agricultural commodities certainly contributed to the positive development of exports as the majority of these enter the high-income markets of the EU.

### 5.1 General trade

Turkey's trade balance fluctuated significant between 1992 and 2001. The trade deficit was at its greatest in 1997 and 2000 with respectively 19.7 and 28.9 bio EUR. In 2001 the trade deficit fell to 11.2 bio EUR, its lowest level since 1995 (Graph 8).

Over the last decade, total exports increased continuously and expanded by more than 110% between 1992 and 2001 in EUR terms. Equally, total imports grew by 70% over the same period, but decreased in the years 1993, 1997 and 2001. The devaluation of the Turkish Lira strongly affected imports in 2001 and led to a decline of 21.3% against 2000.

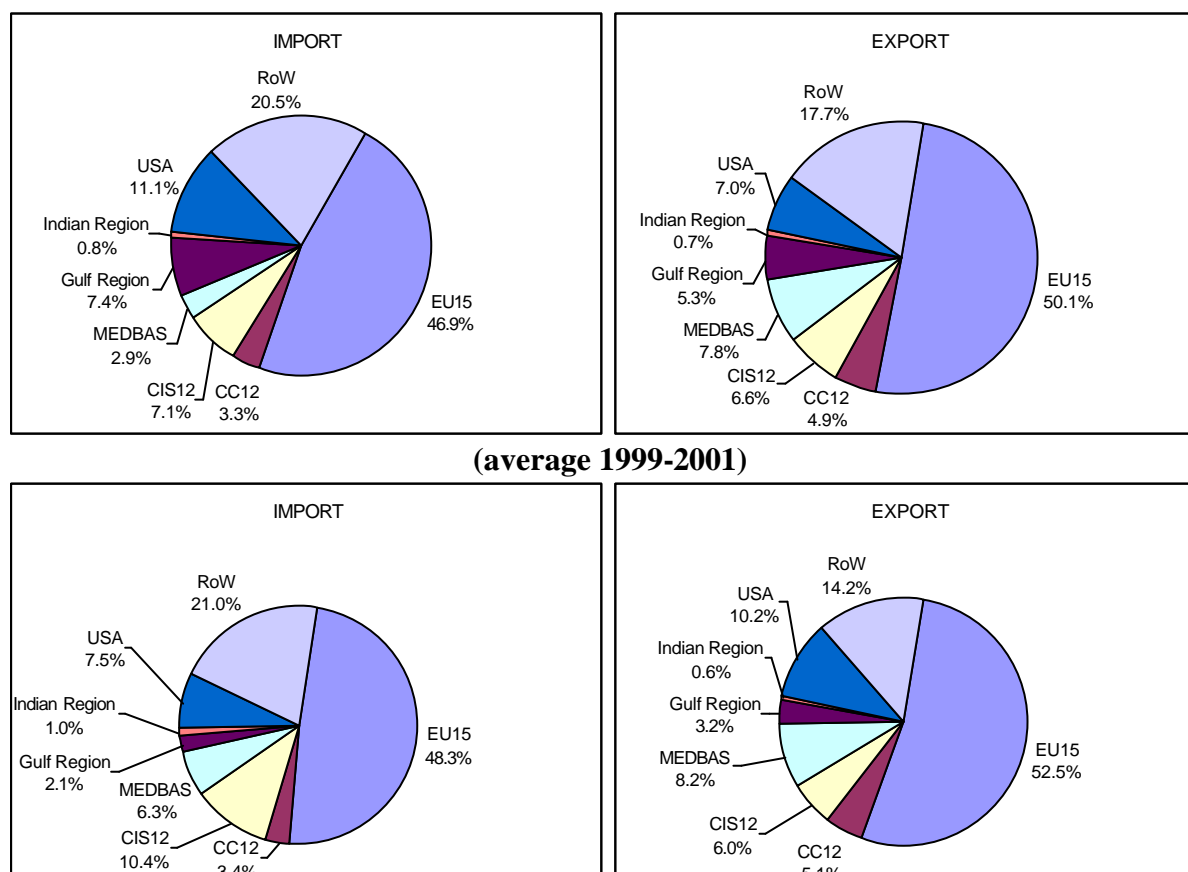
**Graph 8 Development of Turkey's Total Foreign Trade (bio EUR)**



Source: Comtrade.

The Member States of European Union are Turkey's most important trade partners. On average for the years 1999-2001, Turkey imported 48.3% of its total import from EU-15 and 3.4% from the twelve Candidate Countries. Moreover, since 1992-1994 the value of imports from the EU increased by 130% in terms of value. Within the EU-15, Germany and Italy are the main exporters to Turkey followed by France, UK and the Netherlands. Turkey has also important trade relations with the Gulf Region even after a significant decline of its imports and exports as compared to the 1992-1994 period. On the other hand, the CIS (Russian Federation, Ukraine, Azerbaijan, Georgia, etc.) and the countries of the Mediterranean basin remained other important regions for Turkish trade over the last 10 years<sup>5</sup>.

**Graph 9 Market share of Trade Partners (average 1992-1994)**



Source: Comtrade.

Turkey's exports generally show more stable trends concerning trade partners than the imports. In 1999-2001 52.5% of total exports went to EU-15 and around 5% to the Candidate Countries with an increase of 4.8% and 4.1% respectively in terms of regional importance as compared to 1992-1994 (Graph 9). The main European importers of Turkish products are Germany, United Kingdom, Italy, France and Spain in order of importance. The United States of America represents the second most important trade partner with a share of 10.2% in the most recent years thanks to a significant increase over the nineties. The Mediterranean basin is the third partner in terms of importance with a share of 8.2%, while the CIS and the Gulf region record a decrease in their imports from Turkey in relative terms of rate even if they show a growth in absolute terms.

<sup>5</sup> Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russian Federation, Turkey and Ukraine adopted the Bosphorous Statement on 1992 giving birth to Black Sea Economic Co-operation (BSEC).

## 5.2 Agricultural trade

Turkey exports about 4.2 bio EUR and imports about 2.9 bio EUR worth of agricultural and food products. Turkey's main trade partners are the EU and the Accession and Candidate Countries; the USA is another important partner mainly for Turkish imports.

Turkey has a comfortable trade surplus with the EU-15 mainly due to exports of edible fruits & nuts, preparations of fruit and vegetables as well as tobacco and tobacco products. Turkey has also important trade relations and a trade surplus with countries in the Mediterranean basin and the Gulf region<sup>6</sup>.

The most important trade partner on the import side is the USA in particular for tobacco and tobacco products, cereals and oilseeds. Turkey has an agricultural trade deficit of almost 600 mio EUR with the USA.

**Table 9 Main trade agricultural partners. Turkey (1000 EUR)**

| Main trade partners          | IMPORT  |         |         | EXPORT    |           |           | Balance   |          |           |
|------------------------------|---------|---------|---------|-----------|-----------|-----------|-----------|----------|-----------|
|                              | 1999    | 2000    | 2001    | 1999      | 2000      | 2001      | 1999      | 2000     | 2001      |
| EU-15                        | 718.039 | 916.488 | 734.925 | 1.806.497 | 1.682.807 | 1.931.442 | 1.088.457 | 766.319  | 1.196.516 |
| AC-10+CC-2                   | 134.328 | 110.563 | 68.916  | 201.361   | 204.773   | 228.039   | 67.034    | 94.210   | 159.124   |
| Gulf Region+Mediterranean B. | 151.867 | 220.245 | 130.686 | 562.028   | 644.107   | 741.483   | 410.161   | 423.863  | 610.797   |
| USA                          | 586.014 | 973.441 | 843.362 | 274.552   | 236.969   | 302.489   | -311.462  | -736.472 | -540.873  |

Source: Comtrade.

The trade in agricultural products has a share of 13.2% of total exports and 5.8% of total imports in 2001. Agricultural products are of significantly greater importance for Turkish exports than in the EU-15.

The agricultural trade increased in value during the period 1992 to 2001. Despite some decrease in 1993, 1997, 1998 and 2001, the total value of imports increased by 1.9 times during that time.

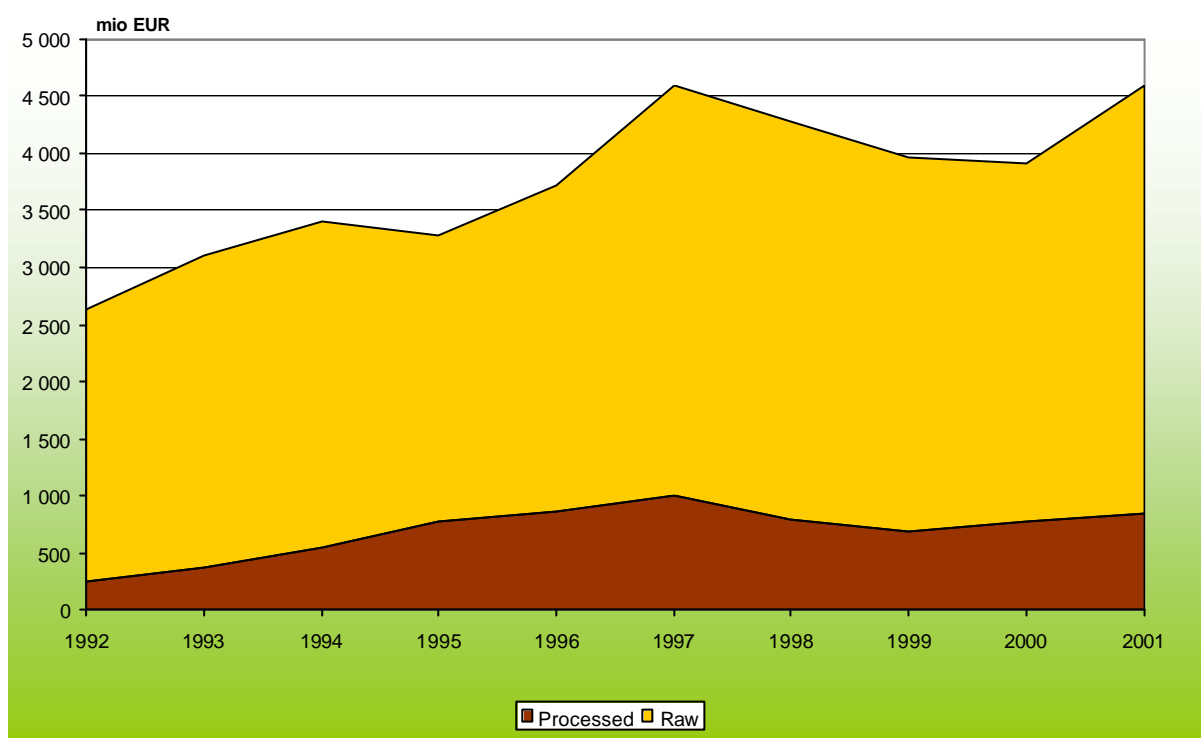
Total exports increased 3.1 times over the same period. The exports of processed agricultural products grew by 3.4 times between 1992 and 2001 (Graph 10).

The total agricultural trade balance is positive for the period concerned. It grew from 1 222 mio EUR in 1992 to 1 896 mio EUR in 2001 (Graph 11). For the raw products, the balance is negative for the years 1995, 1996 and 2000, but has noticeably recovered from 2000 to 2001. The largest trade surplus in agricultural and food products was recorded in 2001.

As far as imported commodities in recent years are concerned, cereals are the main trade good with 12% of the total agricultural import, followed by "tobacco and tobacco products".

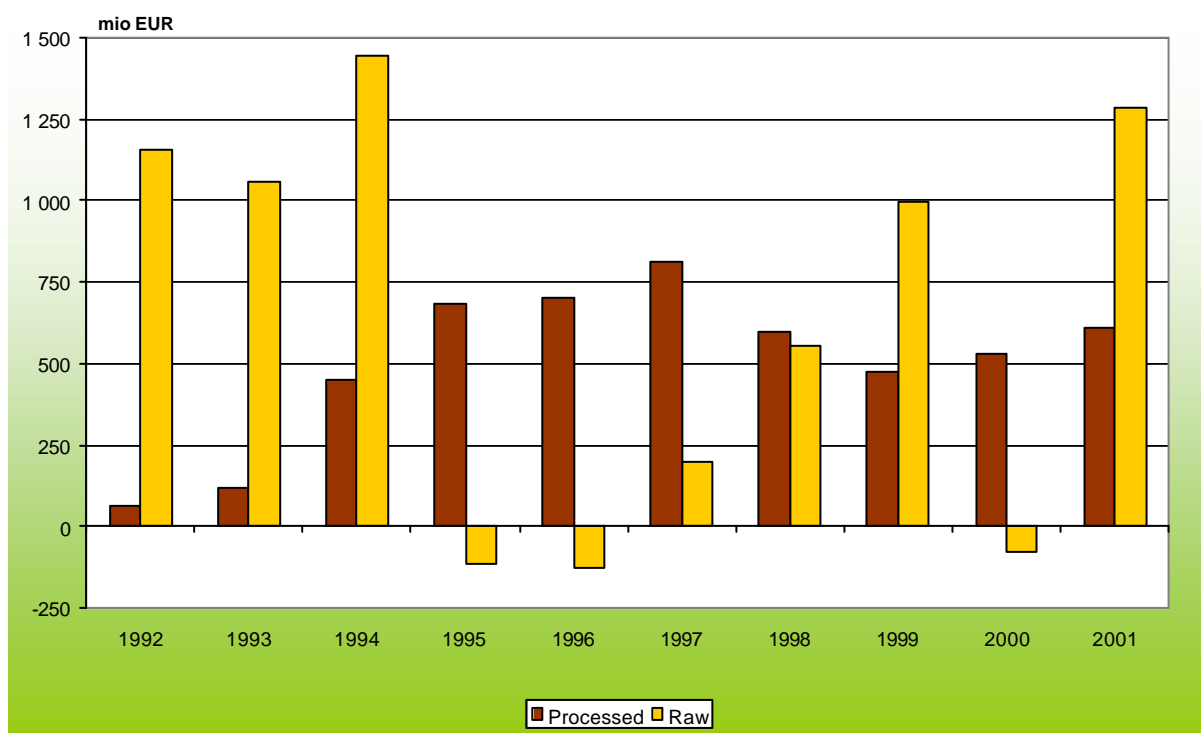
<sup>6</sup> Mediterranean Basin (MEDBAS) includes Algeria, Morocco, Tunisia, Egypt, Lebanon, Syria, Israel, Jordan, Libya.

Gulf Region includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, U.A.Emirates.

**Graph 10 Turkey's Total Agricultural Exports (mio EUR)**

Source: Comtrade.

On the export side, “edible fruits & nuts” are the most important commodity group with 29% of total agricultural export. “Preparations of vegetables, fruits, nuts & plants” and “tobacco and tobacco products” follow as the second and third most important agricultural exporting products with 13.2% and 12.4% respectively (Table 10). The latter is mainly directed to the US.

**Graph 11 Turkey's Total Agricultural Balance (export - import) (mio EUR)**

Source: Comtrade.

**Table 10** Share of most important products or product groups in total agricultural trade (average 1999-2001)

| Products                                | Imports %                          | Exports %                          |
|---|------------------------------------|------------------------------------|
|   | (total agricultural imports = 100) | (total agricultural exports = 100) |
| Cereals                                 | 11,6                               | 5,1                                |
| Oilseeds & oleaginous fruits            | 8,4                                | 1,3                                |
| Edible vegetables, roots & tubers       | 2,8                                | 7,7                                |
| Edible fruits & nuts                    | 2,1                                | 29,0                               |
| Live animals                            | 1,0                                | 0,5                                |
| Dairy products                          | 1,1                                | 0,9                                |
| Products of animal origin               | 0,7                                | 0,9                                |
| Animal or vegetable fats & oils         | 13,2                               | 5,9                                |
| Preparation of vegetables, fruits, nuts | 0,6                                | 13,2                               |
| Sugar and sugar confectionery           | 0,5                                | 6,6                                |
| Coffee, tea, mate & spices              | 1,0                                | 1,5                                |
| Cacao and cacao preparation             | 2,5                                | 2,0                                |
| Tobacco and tobacco products            | 11,2                               | 12,4                               |
| Others                                  | 43,4                               | 13,1                               |

Source: Comtrade.

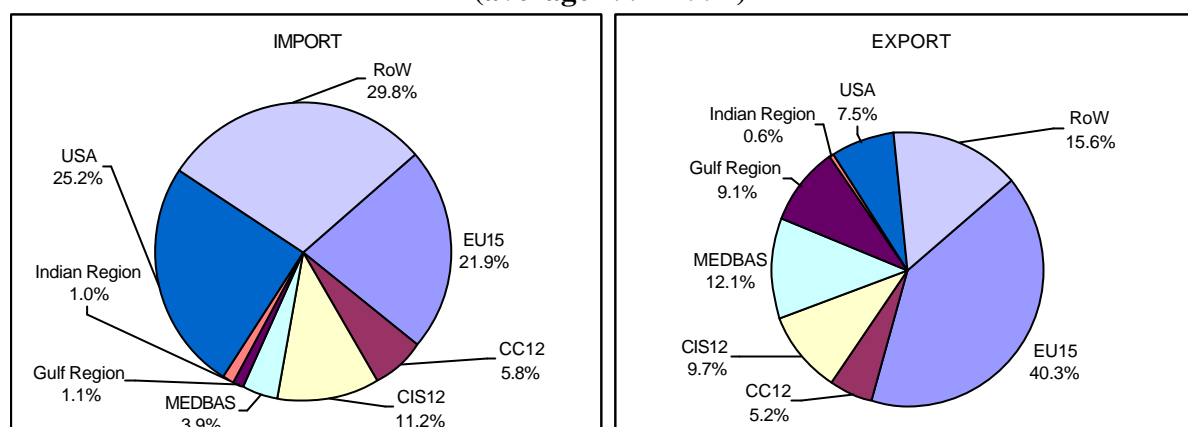
As for the general trade, Turkey's major trade partner of agricultural products is the EU-15, with 43.5% of exports (Graph 12) of which more than one third is exported to Germany mainly in the form of tobacco products, fruits and nuts. Italy, UK, the Netherlands and France are also relevant export destinations with 40% of the total agricultural Turkish products in EU-15 area.

The market share of the EU-15 in Turkey's agricultural imports is 27.4%; the EU-27 would have a share of 31%. Within EU-15, the major exporters to Turkey are Germany and Greece with about 35% of the total followed by Spain, UK, France and the Netherlands which combined represent 44%.

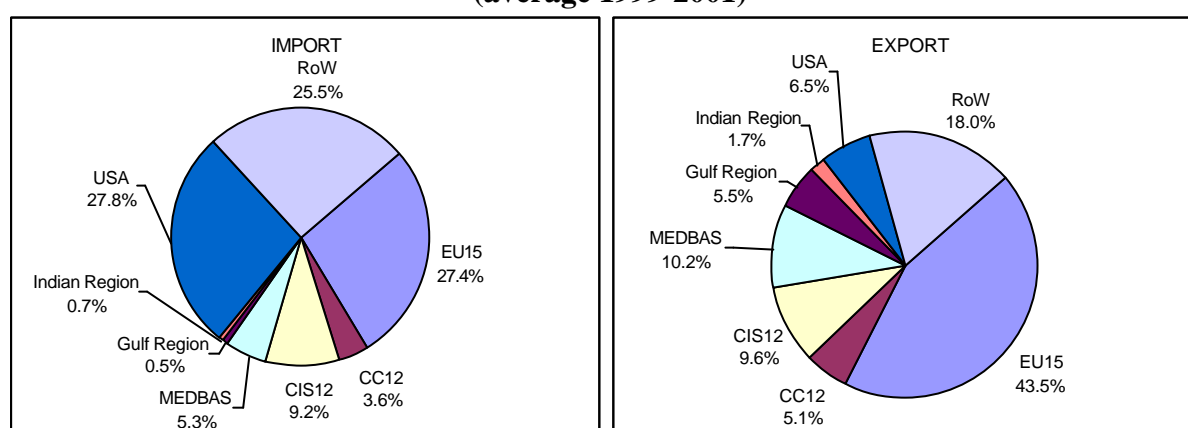
Between 1999 and 2001 the US as well as the EU-15 increased their share in exports to Turkey in terms of value by 96% and 123% respectively as compared to 1992-1994. In order of importance, the major US exports to Turkey concern cotton (173 mio USD), cereals, soybeans and soybean meal (130 mio USD) while the main imports regard tobacco, processed fruit and vegetables, olive oil and nuts. The main exports of the EU-15 to Turkey are raw commodities such as hides and skins of animals, edible preparations and vegetable fibres.

Turkey has a trade surplus with the EU-15 in the field of agriculture. In 2001 Turkey expanded significantly its exports by 14.1% to 2.19 bio EUR. Imports from the EU reached 0.77 bio EUR that is 23.8% less than in 2000 and finds its main cause in the devaluation of the Turkish Lira and the downturn of the economy.

**Graph 12 Share of Agricultural Trade Partners  
(average 1992-1994)**



**(average 1999-2001)**



Source: Comtrade.

## 6 Agricultural Policies and Support

From the point of view of agricultural policies, the competitiveness of Turkish agriculture and food industries is one of the major political and economic challenges for the future. Apart from measures directly targeted at improving competitiveness, it would also implicate the development of rural regions, which would have a positive indirect effect. Efforts in that direction would be certainly resource consuming as the Turkish agriculture employs 33% of the work force and is, unlike most regions of the EU, the predominant economic sector in rural areas.

The support for Turkish agriculture has mainly been channelled through price support (i.e. “deficiency payments” for sunflower seed, soybean, cotton, olive oil), input subsidies (credit, fertilizer and irrigation) and supply control measures for crops such as tobacco, hazelnuts and tea (Alternative Crop Scheme). The government has also been involved in the purchasing, processing and marketing of crops (often through financial support to farmer-owned co-operatives). In addition, the state banks have provided the sector with interest subsidies. This policy is mostly directed towards the market-oriented producers.

According to the OECD estimate the support for agriculture in Turkey is lower on a per-ha and a per-capita basis than in the EU and in the OECD countries on average.

However, agricultural policies in Turkey absorb a significant higher share of the GDP as compared to the OECD average (Table 11).

**Table 11 Indicators of agricultural support**

|   | 1986-1988 | 2000 | 2001 | 2002 |
|---|-----------|------|------|------|
| <b>PSE per hectare of agricultural land (EUR)</b> |           |      |      |      |
| Turkey  | 67        | 183  | 63   | 161  |
| EU  | 644       | 697  | 711  | 775  |
| OECD  | 167       | 204  | 196  | 193  |
| <b>PSE in %</b>                                   |           |      |      |      |
| Turkey  | 15%       | 21%  | 10%  | 23%  |
| EU  | 40%       | 34%  | 34%  | 36%  |
| OECD  | 38%       | 32%  | 31%  | 31%  |
| <b>TSE per capita (EUR)</b>                       |           |      |      |      |
| Turkey  | 55        | 169  | 88   | 120  |
| EU  | 296       | 288  | 299  | 323  |
| OECD  | 270       | 311  | 303  | 300  |
| <b>TSE as % of GDP</b>                            |           |      |      |      |
| Turkey  | 3.6       | 5.3  | 3.6  | 4.1  |
| EU  | 2.7       | 1.3  | 1.3  | 1.3  |
| OECD  | 2.3       | 1.3  | 1.2  | 1.2  |

Source: OECD<sup>7</sup>.**Table 12 Budget impact of the agricultural reform on selected support measures (mio USD)**

|                                       | 1999  | 2000  | 2001  | 2002  | 2003  |
|---------------------------------------|-------|-------|-------|-------|-------|
| <b>Credit subsidy</b>                 | 956   | 130   | 182   | 0     | 0     |
| Fertiliser                            | 183   | 141   | 51    | 0     | 0     |
| Deficit of State Economic Enterprises | 2 213 | 1 354 | 676   | 355   | ----- |
| <b>Cotton and oilseed premium</b>     | 205   | 240   | 199   | 58    | 125   |
| ASCUs <sup>8</sup>                    | 450   | 260   | 0     | 0     | 0     |
| Direct income support payments        | 0     | 0     | 58    | 628   | 1 190 |
| <b>Total</b>                          | 4 268 | 2 711 | 1 367 | 1 179 | ----- |

Source: OECD.

Turkey is currently implementing a programme<sup>9</sup> to restructure the farm sector and public support. The objective of the "Agricultural Reform Implementation Project" (ARIP 2001-2005) is to phase out price support and credit subsidies and to withdraw the State from direct involvement in the production, processing and marketing of the crops. A Direct Income Support (DIS) system is being introduced, which is based on land rather than inputs and outputs. At present, all farmers registered under the Farmer Registration System (FRS)<sup>10</sup> and cultivating between 0.5 ha and 20 ha of crops are eligible for the DIS payment.

<sup>7</sup> Data 2002 are provisional.

<sup>8</sup> Agricultural Sales Cooperative Unions (ASCUs) were in the past commissioned to buy at the announced floor prices. Crops could also be sold to independent buyers.

<sup>9</sup> Official Journal of the European Communities (L61/29 2/3/2002): framework agreement between the EC and the Republic of Turkey on the general principles for the participation of Turkey in Community programmes.

<sup>10</sup> The Ministry of Agriculture and Rural Affairs (MARA) has implemented the Farmer Registration System and the Direct Income Support (DIS).

Considering that 94% of the farm holdings are smaller than 20 ha and that around 2 mio farmers are registered under the FRS, about 75% of the Turkish farms are eligible for the DIS.

ARIP consists then of four major components: 1) design and implementation of the DIS system with a view to introducing a unified national programme of direct income support, 2) farmers' transition towards more profitable crops, 3) restructuring of Agricultural Sales Cooperative Unions (ASCUs) in order to turn it into private sector, and 4) link domestic prices to world prices and reduce the intervention stocks. Table 12 shows the development of support measures affected by the ARIP programme.

The current restructuring programme started in 2000 with a pilot plan of income support payments which tended to encourage a more competitive agricultural sector.

## **Conclusions**

The agricultural sector provides livelihood to a still important part of the Turkish population.

Even if agricultural employment and the number of holdings have significantly decreased over the last decade the sector, with 33% share, is still the most important source of employment. No other EU, Accession and Candidate Country, except Romania, has such an importance of agriculture. The restructuring of agriculture seems to be related to the migration to urban areas, a steady increase in employment in other sectors accompanied by a quite high total unemployment rate.

Family members provide most of the labour in the farm holdings which are mainly of a very small size. As investment is a limiting factor to agricultural capacity, the fact that small holdings have to rely on their own finance clearly shows the role played by the public credit resources and the agricultural policies.

Subsistence and semi-subsistence farming is an important characteristic of Turkish agriculture, which is similar to the situation in regions in the EU-25 as well as in Bulgaria and Romania. This type of farms is characterised by very low productivity, high hidden unemployment and low competitiveness. Problems related to the lack in the infrastructural network still persist particularly in the regions where climatic and geographical conditions have also a significant influence. Nevertheless the subsistence farms are crucial for providing income security and livelihood to the majority of the rural population in Turkey.

In parallel to the subsistence sector also market oriented agriculture exists with strong competitiveness in particular areas. This partial competitiveness shifts the agricultural trade balance to a comfortable surplus. Turkish exports to the EU comprise mainly of fruit and nuts, preparations of vegetables and tobacco.

The co-existence of market oriented and subsistence agriculture poses significant challenges for the future competitiveness of agriculture and the viability of rural economies in an integrating interregional framework.

Subsistence and semi-subsistence farms are difficult to reach with traditional market and price policies, because they only market a minor part of their production with a very limited regional scope. Domestic agricultural policies are currently reoriented towards Direct Income Support payments for crops under the Agricultural Reform Implementation Project. The reform certainly increases the income transfer efficiency of agricultural policies in Turkey. However, it remains to be seen how this policy shift will improve the conditions in rural economies as a whole, regarding the fact that Turkey devotes substantial 4.1% of its GDP to agricultural support.

## **ANNEX I**

### **Altimetry and Weather Monitoring**

Although Turkey is situated in the Mediterranean geographical location where climatic conditions are quite temperate, diverse nature of the landscape and the existence of the mountains (mainly in the eastern area) produce significant differences in climate over all the regions.

With reference to winter season, the Anatolian plateau, where also cereals crops are cultivated, records particularly cold temperature compared to the average. Nevertheless that area is well known to experience hot summers and limited rainfall (usually in form of snow) because of the Taurus Mountains which do not allow rain clouds to penetrate to the interior part of the country.

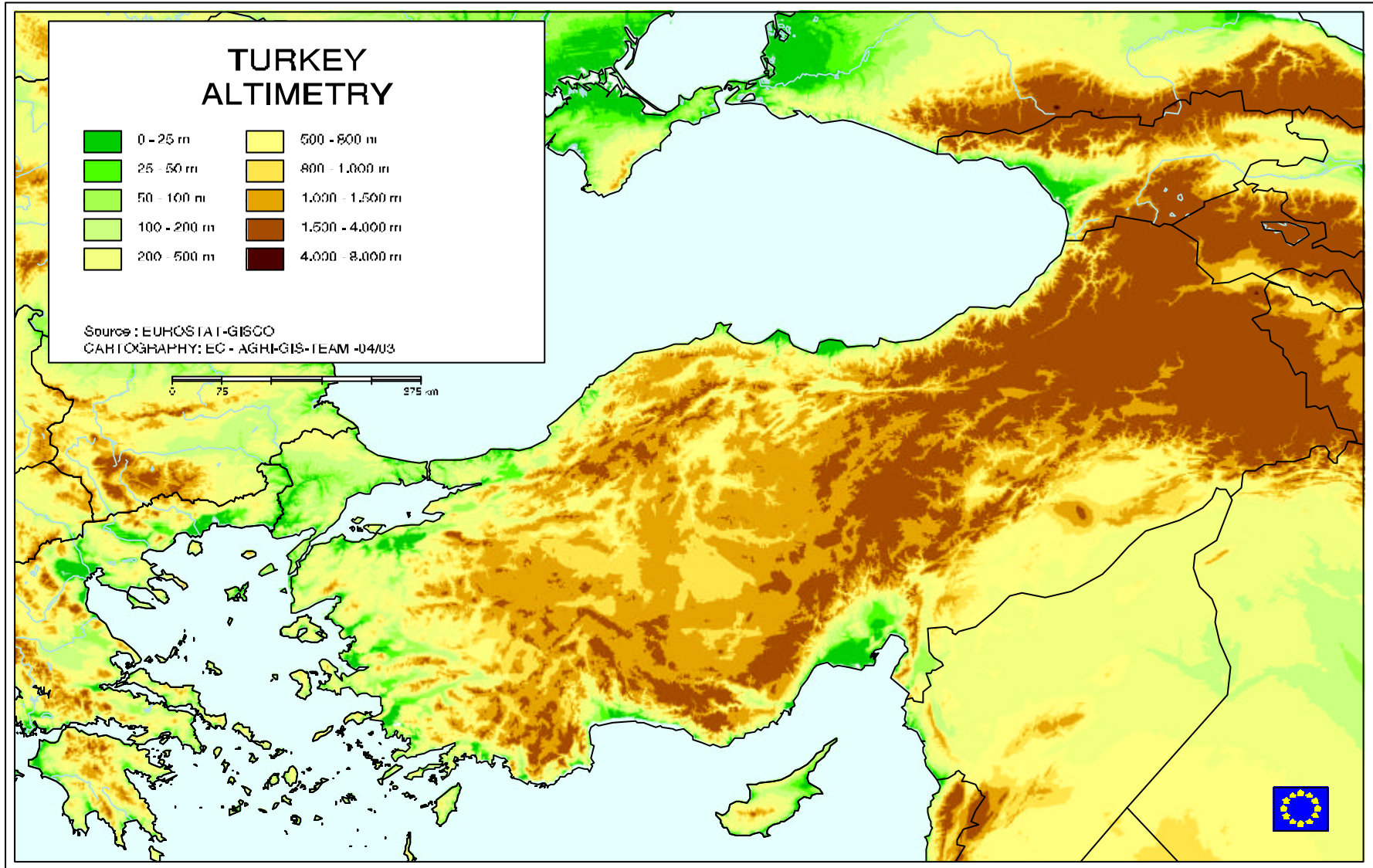
As Map 3 shows, the eastern Anatolia hosts mountains exceeding 2000 m where minimum temperatures of  $-20^{\circ}\text{C}$  can be recorded at the end of January and maximum temperatures stand around  $28^{\circ}\text{C}$  in summer (see Maps 6, 7). That area is mainly livestock oriented.

The Black Sea areas receive the most regular amount of rainfall throughout the year (60-120 mm per month) except in July and August, as it is evident in the monthly precipitation maps (see Maps 4, 5).

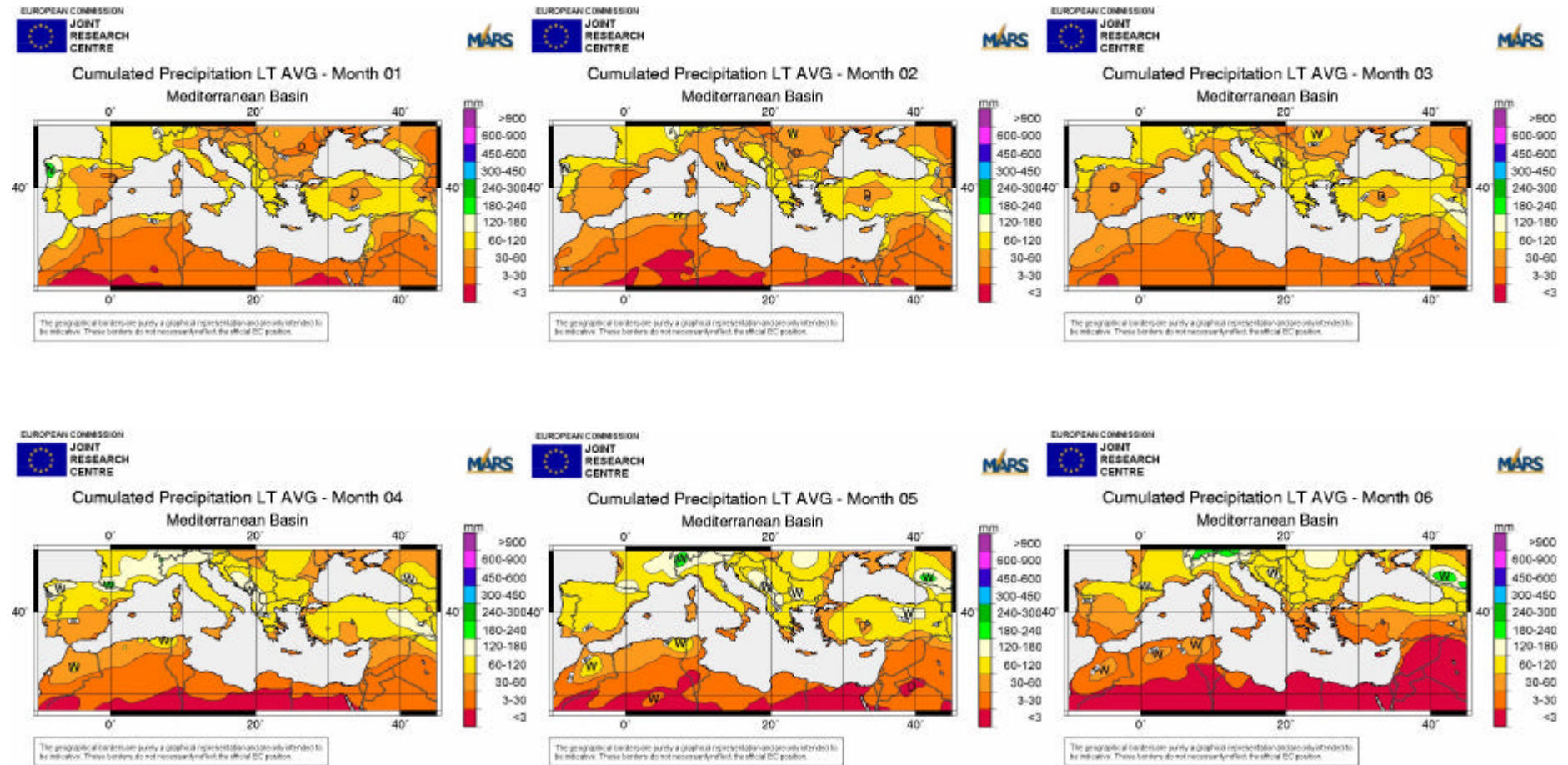
Aegean and Western Anatolia have a mild Mediterranean climate which allows fruit and vegetables growth. Precipitations stand around 60-120 mm per month over the November-March period (they reach even 180 mm in December) but they are extremely scarce in summer.

The temperature is never below  $0^{\circ}\text{C}$ .



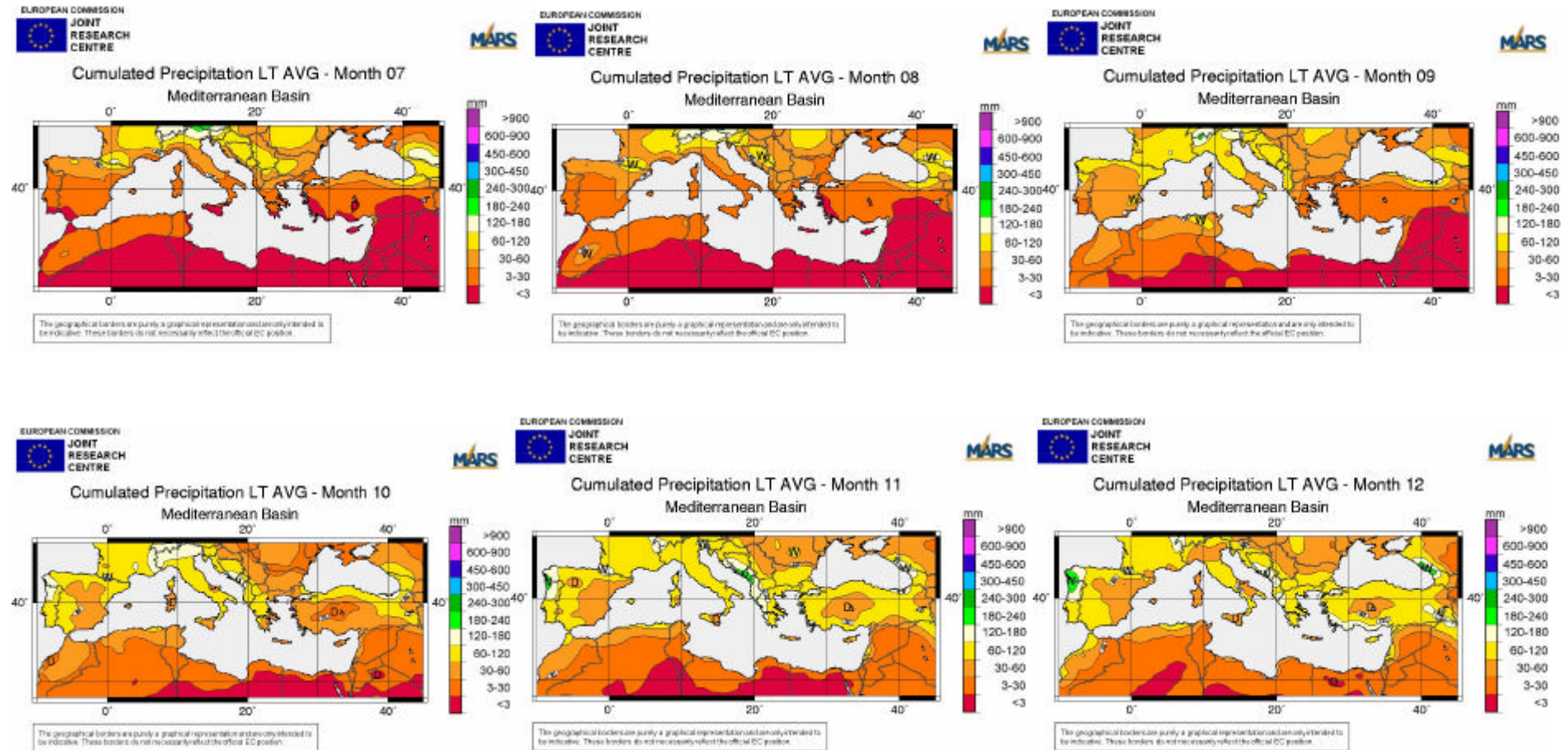


## Map 4 Long-term average of cumulated precipitation in Turkey and in the Mediterranean Basin: January-June



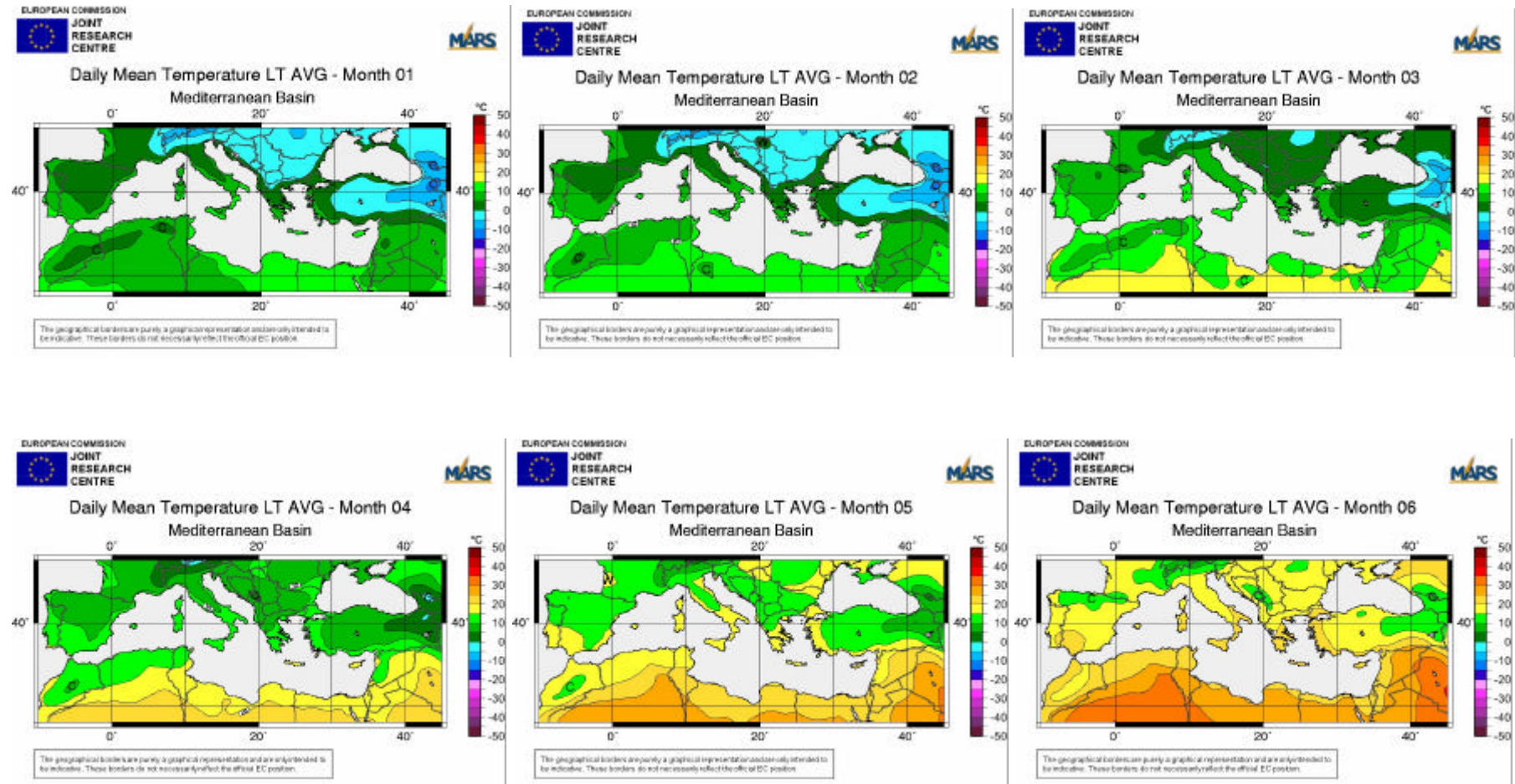
Source: Joint Research Centre of European Commission - Mars

## Map 5 Long-term average of cumulated precipitation in Turkey and in the Mediterranean Basin: July-December



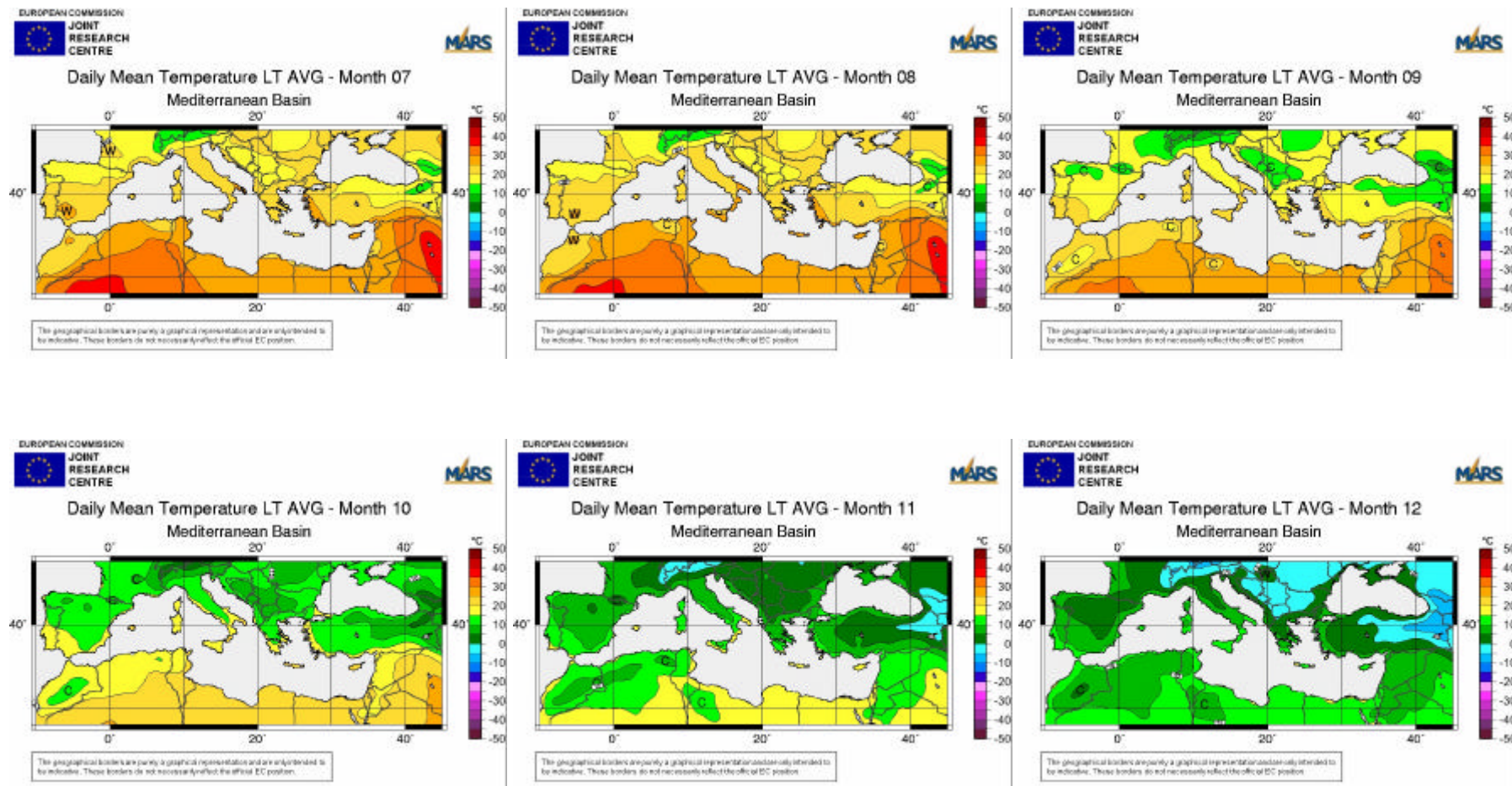
Source: Joint Research Centre of European Commission - Mars

## Map 6 Long-term average of daily mean temperature in Turkey and in the Mediterranean Basin: January-June



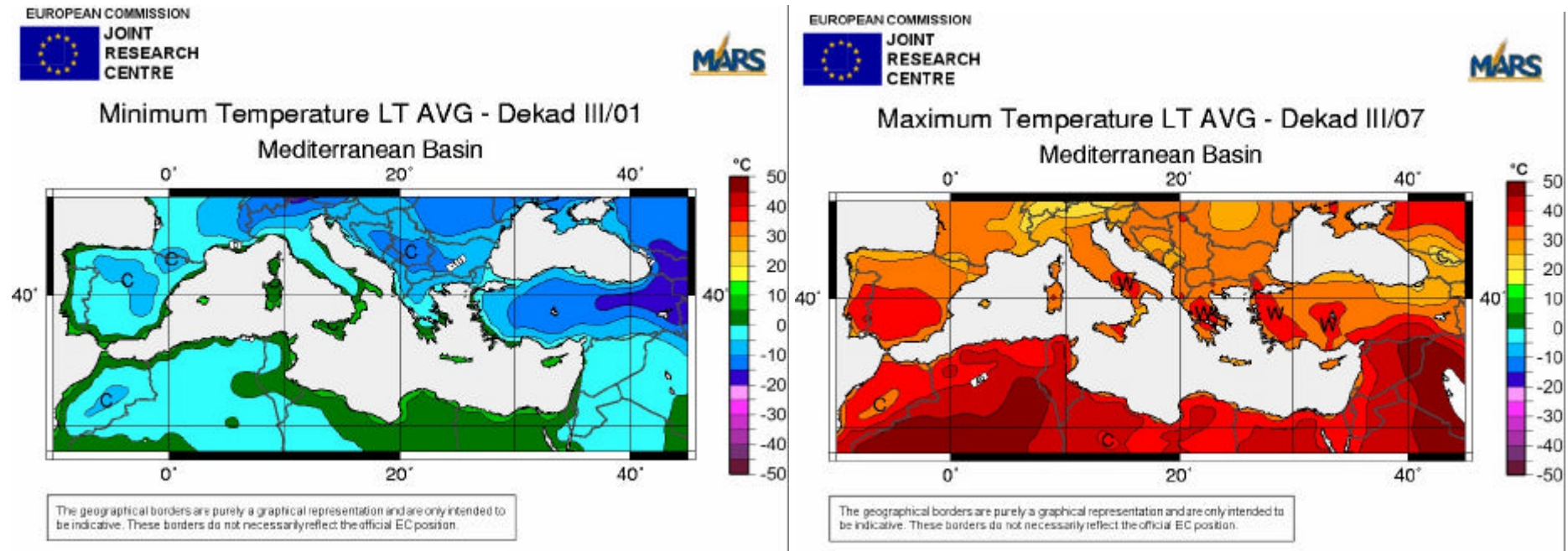
Source: Joint Research Centre of European Commission - Mars

## Map 7 Long-term average of daily mean temperature in Turkey and in the Mediterranean Basin: July-December



Source: Joint Research Centre of European Commission - Mars

**Map 8** Long-term average minimum temperature at the end of January and maximum temperature at the end of July in Turkey and in the Mediterranean Basin



Source: Joint Research Centre of European Commission - Mars

## ANNEX II

## Regions in Turkey

| Istanbul | Western Marmara   | Aegean   | Eastern Marmara  | Western Anatolia           | Mediterranean   | Middle Anatolia   | Western Black Sea   | Eastern Black Sea   | North Eastern Anatolia   | Middle Eastern Anatolia   | South Eastern Anatolia  |
|----------|---|--|--|----------------------------|---|---|---|---|--|---|---|
| Istanbul | Tekirdag<br>Edirne<br>Kirkclareli<br>Balikesir<br>Çanakkale | Izmir<br>Aydin<br>Denizli<br>Mugla<br>Manisa<br>Afyon<br>Kütahya<br>Usak | Bursa<br>Eskisehir<br>Bilecik<br>Kocaeli<br>Sakarya<br>Düzce<br>Bolu<br>Yalova | Ankara<br>Konya<br>Karaman | Antalya<br>Isparta<br>Burdur<br>Adana<br>Içel<br>Hatay<br>Kahramanmaraş<br>Osmaniye | Kirikkale<br>Aksaray<br>Nigde<br>Nevsehir<br>Kirsehir<br>Kayseri<br>Sivas<br>Yozgat | Zonguldak<br>Karabük<br>Bartın<br>Kastamonu<br>Çankiri<br>Sinop<br>Samsun<br>Tokat<br>Çorum<br>Amasya | Trabzon<br>Ordu<br>Giresun<br>Rize<br>Artvin<br>Gümüşhane | Erzurum<br>Erzincan<br>Bayburt<br>Agri<br>Kars<br>Iğdir<br>Ardahan | Malatya<br>Elazığ<br>Bingöl<br>Tunceli<br>Van<br>Mus<br>Bitlis<br>Hakkari | Gaziantep<br>Adiyaman<br>Kilis<br>Sanliurfa<br>Diyarbakir<br>Mardin<br>Batman<br>Sınak<br>Siirt |

## ANNEX III

## Share of Gross Domestic Product by Statistical Regions in 2000 – Total economy and Agricultural sector

| Istanbul             | Western Marmara | Aegean | Eastern Marmara | Western Anatolia | Mediterranean | Middle Anatolia | Western Black Sea | Eastern Black Sea | North Eastern Anatolia | Middle Eastern Anatolia | South Eastern Anatolia |
|----------------------|-----------------|--------|-----------------|------------------|---------------|-----------------|-------------------|-------------------|------------------------|-------------------------|------------------------|
| <b>TOTAL ECONOMY</b> |                 |        |                 |                  |               |                 |                   |                   |                        |                         |                        |
| 22,1%                | 5,0%            | 16,7%  | 12,9%           | 10,5%            | 11,8%         | 4,0%            | 5,7%              | 2,6%              | 1,3%                   | 2,2%                    | 5,2%                   |
| <b>AGRICULTURE</b>   |                 |        |                 |                  |               |                 |                   |                   |                        |                         |                        |
| 0,8%                 | 8,7%            | 17,4%  | 10,5%           | 8,9%             | 14,6%         | 8,4%            | 9,4%              | 4,2%              | 4,4%                   | 5,4%                    | 7,3%                   |

Source: SIS.

**ANNEX IV Trade in Agricultural Products. Turkey.**  
**Average 1999-2001 (1 000 EUR)**

| AGRICULTURAL PRODUCTS                               | IMPORT            |              |                   |                  |                  |                  |                   | EXPORT            |              |                   |                  |                  |                  |                  |
|---|-------------------|--------------|-------------------|------------------|------------------|------------------|-------------------|-------------------|--------------|-------------------|------------------|------------------|------------------|------------------|
|   | WORLD             | %            | EU-15             | CC-12            | CIS-12           | USA              | ROW               | WORLD             | %            | EU15              | CC12             | CIS12            | USA              | ROW              |
| Live Animals  | 27 965            | 1,0          | 16 152            | 385              | 13               | 8 994            | 2 421             | 20 621            | 0,5          | 1 476             | 164              | 337              | 0                | 18 643           |
| Meat and edible meat offal                          | 520               | 0,0          | 85                | 32               | 3                | 337              | 64                | 14 577            | 0,4          | 730               | 1 291            | 3 345            | 0                | 9 212            |
| Dairy produce                                       | 32 452            | 1,1          | 21 612            | 3 820            | 847              | 500              | 5 673             | 36 658            | 0,9          | 6 459             | 4 565            | 6 788            | 436              | 18 410           |
| Products of animal origin                           | 19 713            | 0,7          | 2 746             | 459              | 4 471            | 568              | 11 469            | 36 094            | 0,9          | 34 360            | 51               | 6                | 70               | 1 606            |
| <b>Total Animal Products</b>                        | <b>80 649</b>     | <b>2,8</b>   | <b>40 594</b>     | <b>4 696</b>     | <b>5 334</b>     | <b>10 399</b>    | <b>19 627</b>     | <b>107 949</b>    | <b>2,6</b>   | <b>43 024</b>     | <b>6 071</b>     | <b>10 477</b>    | <b>506</b>       | <b>47 871</b>    |
| Live trees and other plants                         | 16 797            | 0,6          | 15 023            | 499              | 220              | 287              | 768               | 15 787            | 0,4          | 12 010            | 314              | 1 077            | 18               | 2 369            |
| Edible vegetables, roots & tubers                   | 79 624            | 2,8          | 6 712             | 868              | 1 862            | 2 412            | 67 770            | 320 311           | 7,7          | 104 702           | 12 027           | 18 560           | 9 173            | 175 849          |
| Edible fruits & nuts                                | 59 381            | 2,1          | 6 468             | 1 293            | 1 365            | 1 538            | 48 718            | 1 206 367         | 29,0         | 773 868           | 60 489           | 100 004          | 42 853           | 229 155          |
| Coffee, tea, mate & spices                          | 30 037            | 1,0          | 3 323             | 116              | 45               | 345              | 26 209            | 60 744            | 1,5          | 23 531            | 1 844            | 1 233            | 17 894           | 16 242           |
| Cereals   | 333 511           | 11,6         | 58 905            | 35 099           | 35 576           | 124 555          | 79 377            | 211 352           | 5,1          | 35 689            | 10 237           | 8 934            | 87               | 156 405          |
| Products of the milling industry                    | 5 470             | 0,2          | 4 634             | 242              | 90               | 42               | 462               | 85 118            | 2,0          | 27 029            | 718              | 19 168           | 1 508            | 36 695           |
| Oil seeds & oleaginous fruits                       | 242 732           | 8,4          | 32 530            | 18 039           | 67 145           | 74 336           | 50 683            | 54 413            | 1,3          | 29 474            | 4 899            | 4 607            | 2 117            | 13 316           |
| Other vegetable products                            | 21 639            | 0,8          | 16 891            | 259              | 141              | 418              | 3 931             | 18 740            | 0,5          | 11 459            | 43               | 36               | 3 230            | 3 973            |
| <b>Total Crop Products</b>                          | <b>789 192</b>    | <b>27,4</b>  | <b>144 484</b>    | <b>56 415</b>    | <b>106 444</b>   | <b>203 933</b>   | <b>277 916</b>    | <b>1 972 833</b>  | <b>47,5</b>  | <b>1 017 760</b>  | <b>90 570</b>    | <b>153 619</b>   | <b>76 880</b>    | <b>634 004</b>   |
| <b>Animal or vegetable fats &amp; oils</b>          | <b>379 935</b>    | <b>13,2</b>  | <b>75 825</b>     | <b>11 791</b>    | <b>24 070</b>    | <b>103 515</b>   | <b>164 734</b>    | <b>246 673</b>    | <b>5,9</b>   | <b>82 860</b>     | <b>6 535</b>     | <b>23 126</b>    | <b>20 182</b>    | <b>113 971</b>   |
| Preparations of meat                                | 156               | 0,0          | 106               | 4                | 3                | 2                | 41                | 1 440             | 0,0          | 32                | 1 006            | 130              | 0                | 271              |
| Sugar & sugar confectionery                         | 14 661            | 0,5          | 9 444             | 1 389            | 408              | 129              | 3 291             | 272 508           | 6,6          | 26 518            | 11 696           | 94 120           | 2 198            | 137 977          |
| Cocoa and cocoa preparations                        | 71 346            | 2,5          | 22 971            | 668              | 26               | 90               | 47 590            | 83 796            | 2,0          | 12 794            | 6 618            | 20 192           | 763              | 43 429           |
| Preparations of cereals, flour, starch, etc.        | 32 952            | 1,1          | 29 307            | 1 367            | 8                | 994              | 1 277             | 120 820           | 2,9          | 14 353            | 11 970           | 12 483           | 3 779            | 78 235           |
| Preparations of vegetables, fruits, nuts & plants   | 18 235            | 0,6          | 12 471            | 855              | 22               | 652              | 4 235             | 548 855           | 13,2         | 366 369           | 25 310           | 25 295           | 24 835           | 107 045          |
| Miscellaneous edible preparations                   | 105 901           | 3,7          | 85 508            | 619              | 1                | 6 158            | 13 615            | 97 827            | 2,4          | 11 748            | 8 654            | 25 885           | 340              | 51 199           |
| Beverages, spirits and vinegar                      | 15 004            | 0,5          | 12 893            | 274              | 134              | 747              | 957               | 40 360            | 1,0          | 19 725            | 7 091            | 2 469            | 436              | 10 638           |
| Residues and waste from food industry               | 159 768           | 5,5          | 20 568            | 10 244           | 16 247           | 74 036           | 38 673            | 14 060            | 0,3          | 385               | 2 474            | 442              | 47               | 10 712           |
| Tobacco and tobacco products                        | 323 482           | 11,2         | 12 721            | 73               | 15               | 206 802          | 103 871           | 515 134           | 12,4         | 149 481           | 28 068           | 28 265           | 137 928          | 171 392          |
| <b>Total Prepared foodstuff, beverages, tobacco</b> | <b>741 505</b>    | <b>25,7</b>  | <b>205 988</b>    | <b>15 492</b>    | <b>16 865</b>    | <b>289 610</b>   | <b>213 550</b>    | <b>1 694 799</b>  | <b>40,8</b>  | <b>601 407</b>    | <b>102 888</b>   | <b>209 280</b>   | <b>170 326</b>   | <b>610 899</b>   |
| <b>Other WTO Agricultural products*</b>             | <b>893 261</b>    | <b>31,0</b>  | <b>322 926</b>    | <b>16 208</b>    | <b>111 525</b>   | <b>193 482</b>   | <b>249 120</b>    | <b>135 355</b>    | <b>3,3</b>   | <b>61 865</b>     | <b>5 327</b>     | <b>2 307</b>     | <b>3 443</b>     | <b>62 414</b>    |
| <b>TOTAL Agricultural Products</b>                  | <b>2 884 542</b>  | <b>100,0</b> | <b>789 817</b>    | <b>104 602</b>   | <b>264 236</b>   | <b>800 939</b>   | <b>924 947</b>    | <b>4 157 610</b>  | <b>100,0</b> | <b>1 806 915</b>  | <b>211 391</b>   | <b>398 809</b>   | <b>271 337</b>   | <b>1 469 158</b> |
| <b>TOTAL of all products</b>                        | <b>47 674 998</b> |              | <b>23 049 699</b> | <b>1 622 295</b> | <b>4 941 516</b> | <b>3 580 132</b> | <b>14 481 356</b> | <b>29 890 872</b> |              | <b>15 692 827</b> | <b>1 522 395</b> | <b>1 805 779</b> | <b>3 035 026</b> | <b>7 834 844</b> |

\* Other WTO agricultural products include confidential trade, raw hides and skins of animals, egg albumin, etc.

Source: Comtrade.