



**EVALUATION DE L'IMPACT ENVIRONNEMENTAL
DE L'ORGANISATION COMMUNE DE MARCHÉ DES
CULTURES PERMANENTES**

**ANNEXE 14 : OCM VIN
ETUDE NATIONALE CHYPRE**

Novembre 2005

TABLE OF CONTENTS

1.	STATE OF THE AGRICULTURE AND AGRICULTURAL ENVIRONMENT IN THE COUNTRY	4
1.1	Brief description of the agriculture in the country.....	4
1.2	Brief description of the environment in agriculture	18
1.3	Brief presentation of the CMO system in the country (Wine)	26
1.3.1	Description of the historic of implementation of CMO.....	26
1.3.2	Organisation of the implementation at national and regional level.....	27
1.3.3	Organisation of the producers	33
1.4	The level of implementation of the CMO measures	33
1.4.1	The Code of Good Agricultural Practice (CGAP).....	34
2.	ANSWER TO EVALUATION QUESTIONS	37
2.1	Preamble	37
2.2	Question on vineyards.....	37
	APPENDICES.....	41
	Annex 1: List of people met.....	41
	Annex 2: Main bibliography identified in relation with the study including reports made prior to the EU membership	41
	Annex 3: Complementary statistics on the production studied	41

LIST OF TABLES

Table 1: Agricultural land 1985 – 2000 (in ‘000 hectares)	6
Table 2: Crop production in 2002	7
Table 3: Planted vineyards by year (in hectares)	8
Table 4: Extent of Vineyards per variety in hectares	8
Table 5: Annual gross output and value added for crop production (current prices).....	9
Table 6: Comparative table of grape production in 2003 and 2004	10
Table 7: Annual sales of Cyprus Wines (in thousand litres).....	10
Table 8: Production of Koumandaria wine (in kilos).....	11
Table 9: Export of major agricultural products, 1990 – 2001 (in €)	11
Table 10: Major crops exported in 2004	12
Table 11: Major crops imported in 2004.....	12
Table 12: Development of wine-producing potential (in hectares).....	13
Table 13: Production of grapes (tonnes)	13
Table 14: Grapes and wine products exports for 2003 and 2004.....	14
Table 15: Grapes and wine products imports/exports for 2000 and 2002.....	14
Table 16: Established Farmer Unions Recognized by MANRE	17
Table 17: Fertilizer Imports during the Period 1992–2001 (Tonnes)	18
Table 18: Quantity of chemicals, weedicides and fertilizers per ha of wine-grapes	20
Table 19: Average Annual Chemical Fertilizer Nitrogen Applications	21
Table 20: Import/export of Pesticides (‘000 US\$)	22
Table 21: General Information of Interest Regarding Agriculture in Cyprus	25
Table 22: Approved areas per variety for irrevocable abandonment of vineyards	30
Table 23: Approved area for restructuring and conversion of vineyards.....	31
Table 24: Producers Organizations	33
Table 25: Measure WPC1a: Permanent Abandonment of Vine Growing 2004 - 2005 Total Number of Received Applications: 3,520 - Area Covered: 25,331 decars	33
Table 26: Measure WPC 1b: Restructuring and Conversion of Vineyards 2004 - 2005 Total Number of Received Applications: 635 - Area Covered: 5,289 decars	34
Table 27: The Personalities / stakeholders interviewed in Cyprus	42
Table 28: Subsidies paid by Government (in million €)	45

LIST OF FIGURES

Figure 1: Cyprus’ GNP: Percent from Agriculture	4
Figure 2: Exports of major agricultural products	13
Figure 3: Fertilizer Consumption in Cyprus 1961 – 2001 in ‘000 metric tons	19
Figure 4: Fertilizer Use Intensity 1961 – 2001 in kg/ha	20
Figure 5: Pesticide Use Intensity in Cyprus in kg/ha – Available Data 1991 – 1997	22

GLOSSARY

UAA	= Utilized Agricultural Area
GNP	= Gross National Product
GATT	= General Agreement on Tariffs and Trade
GDP	= Gross Domestic Product
C£	= Cyprus pound equivalent to approx. 1.71 €
ha	= hectare = 10 decars
MANRE	= Ministry of Agriculture, Natural Resources and Environment
EEA	=European Environmental Agency
RDP	= Rural Development Plan
WDD	= Water Development Department
AE System	= Rural Development Plan = RDP
CMO	= Common Market Organization
CAPO	= Cyprus Agricultural Payments Organization
AEMs	= Agri-Environmental Measures
NMS	= National Member State
CGAP	= Code of Good Agricultural Practice
ARI	= Agricultural Research Institute
WPC	= Wines Product Council

1. STATE OF THE AGRICULTURE AND AGRICULTURAL ENVIRONMENT IN THE COUNTRY

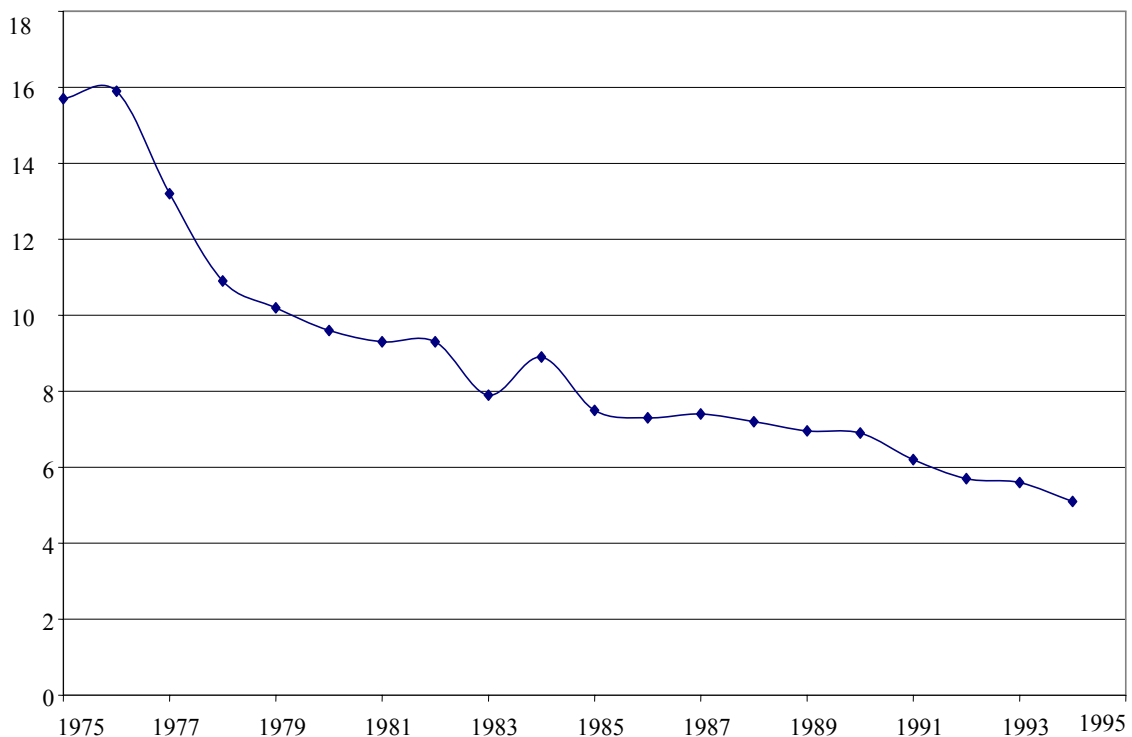
1.1 Brief description of the agriculture in the country

In the text that follows an attempt is made to show the development of agriculture in the country through the years and present an analysis of the existing rural situation in the island.

The intensive rural character of the island in the 1960s with some 64% of the population living in the rural areas and more than 40% of the economically active population employed in agriculture has changed dramatically. By 1992, 32% of the population lived in the rural areas, with the mountainous and semi-mountainous areas losing 50% and more of their population to the major urban centres.

This migration is very well reflected in the percentage contribution to the GNP and its development in the last 40 years. Agriculture, fishing, forests and mining was constant at 21% during the first 10 years but from there on it has been subsided dramatically reaching today the 4.3% of the GNP.

Figure 1: Cyprus' GNP: Percent from Agriculture



Source: Food and Agriculture Organization of the United Nations (FAO), 2004. *FAOSTAT on-line statistical service*.
Rome: FAO. Electronic Database available at: <http://apps.fao.org>.

At present the Cyprus economy relies mainly on tourism, food industry, commerce, transport and services both public and private. The contribution of the greater agricultural sector on employment has shrunk to the level of 8%, half of which refers to persons securing 50% of their income from agriculture. In total today the greater agricultural sector contributes some 4% to the GNP.

The creeping decline of agriculture in the island was intensified after the Turkish invasion in 1974 and the loss of occupied lands. The completion of a series of waterworks in the 1980s allowed the expansion of the potential of agriculture, which covered local demand and enabled export of products. The opening of the European market to new competitors with cheaper labour costs, subsidies and increase in the cost of production together with the competition by other sectors of

the economy led to the undermining of the competitiveness of the Cypriot products and the reduction in exports.

Animal production growth was due to the high customs protection and the generous subsidies, the increasing living standard of Cypriots and the flux of tourists. The crop production did not succeed to face up the international competition and after the GATT agriculture started losing ground even in the local market. Furthermore, the various rain fed crops – vineyards, cereals, almonds, olive-trees and carobs continued to face serious structural and other problems and were totally dependent on subsidies.

Agricultural activity in Cyprus exhibits a number of trends (some common to other European countries). However, an important element in the changes since the Turkish invasion of 1974 has been the impact of the settlement of 200,000 refugees. Major trends include:

- increase in the number and decrease in the size of agricultural holdings; large holdings of Turkish Cypriot ownership were leased to a larger number of Greek Cypriot refugees
- decrease in the area of land under cultivation;
- increase in the area under irrigation;
- major transfer of agricultural land for housing, roads, etc.; and
- migration from rural to urban areas.

The agricultural sector in Cyprus can be divided into two sub-sectors:

- crop production and
- livestock production.

These contribute 68% and 22% respectively to the value of the sector as a whole. Additional production, such as wine, accounts for the remaining activity. Crop production can be divided into two main types:

- irrigated agriculture: citrus fruits, potatoes, vegetables and fruits;
- non-irrigated crops: cereals, olives, carobs, almonds and wine grapes.

The Department of Agriculture oversees a variety of research activities, not least those on sustainable agriculture. Such research has supported changes in cropping practice with support to farmers to grow crops, e.g. legumes, and increase rotation. This will assist in reducing the use of nitrogen fertilizers (Andrew Farmer, IEEP, December 2002).

- Total area of the country

Cyprus has an area of 9,251 km² (925,100 ha). Cyprus's population is 793,100 (2001) Greek and Turkish Cypriots. The ethnic composition of the population is 80.7% % Greeks, 11.0 % Turkish Cypriots and 8.3 % others.

- Total agricultural area in the country

From a total area of 925,100 ha, Utilized Agricultural Area (UAA) represents 134,000 ha or 14.5% of the total. 173,300 ha of the total land, or 18.7%, are covered by forest. In 2000, agriculture in Cyprus accounted for 3.5% of GDP. The value of agricultural production increased in the 1990's, especially that of animal production, which increased by about 50%. Crop production has decreased slightly over the last decade, but still dominates the agricultural production.

About 14,000 persons work in agriculture, fishery and forestry, corresponding to 9.2% of total civilian employment.

The agricultural land by production sector for 1985, 1990, 1995 and 2000 is presented in Table 1. As shown in this Table the total extent of agricultural land is 200,000 hectares showing a decrease of 8.07% between 1985 and 2000. This reduction is mainly due to the reduction of vineyards which amounted to 26.13%.

A reduction is also shown on the sector of Citrus and Fruit trees where a grubbing plan has been applied, and that of olive and carob trees due mainly to the high cost of harvesting.

In general, a 20.35% reduction is noted on permanent plantations.

As a result of the above reductions of the percentage of uncultivable land has increased. Notable is also the major change in the extent of irrigable lands.

Table 1: Agricultural land 1985 – 2000 (in '000 hectares)

Land Use	1985		1990		1995		2000		Difference in 2000 since 1985 (%)	
	Irrigated	Total	Irrigated	Total	Irrigated	Total	Irrigated	Total	Irrigated	Total
CROPS	35,2	162,7	36,1	141,5	35,5	134,4	35,8	135,2	0,86	-9,23
<i>Annual crops</i>	20,5	99,5	20	90,6	18,7	92	19,9	93,4	-1,42	-3,19
Cereals	2,7	56,5	2,7	57,5	2,5	60,9	3	51,5	5,71	-4,60
Legumes	1,1	2,4	1	1,4	0,7	1	0,5	0,8	-36,32	-50,13
Industrial Plants	0,9	1,1	0,9	0,9	0,5	0,5	0,4	0,4	-40,15	-45,59
Forage crops	3,3	27,2	4	19,4	1,8	16,4	5,5	30,2	24,36	5,30
Vegetables and Melons	12,4	12,4	11,4	11,4	13,2	13,2	10,5	10,5	-8,47	-8,47
<i>Permanent plantations</i>	14,7	63,2	16,1	50,9	16,8	42,4	15,9	41,8	3,86	-20,35
Vineyards	2,7	32,8	2,4	25,2	2,1	19,3	2,5	19,2	-3,40	-26,13
Citrus	6,6	6,6	7,5	7,5	7,2	7,2	5,5	5,5	-8,76	-8,76
Fruit trees	4,1	4,3	3,3	3,3	4	4	3,6	3,6	-7,07	-8,65
Dry nuts	0,7	5,9	1,1	4,6	1	3,7	1,2	3,9	28,41	-20,30
Olives & Carobs	0,7	13,6	1,8	10,3	2,5	8,2	3,1	9,6	64,50	-17,41
FALLOW	0,3	16,7	0,3	15	2	7,1	1,5	8	69,72	-35,29
RANGELAND	0	4,5	0	4,2	0	1,5	0	1,1	-	-61,06
UNCULTIVATED LAND	0	36,0	0	40,7	2,5	50,2	1,9	48,1	-	14,40
BARREN LAND	0	14,2	0	7,2	0	7,3	0	6,8	-	-35,19
TOTAL	35,5	234,2	36,4	208,6	40	200,5	39,2	199,2	5,01	-8,07

Source: Agricultural Statistics, 1985. Department of Statistics and Research, Ministry of Finance. Agricultural Statistics 2000. Statistical Service

- Share of this area by main types of crops (arable land, pasture, permanent crops, etc.)

The most important crops (by value) produced in Cyprus are fruits, vegetables and potatoes. Concerning cereals, nearly half of the UAA was used by cereals, mainly barley, in 1992. Since then, cereal area has declined, down to a share of 37.8 % of UAA in 2000. 88.9 % of the cereals area was planted with barley, 12.2 % with wheat and 0.9 % with oats in 2000. The potatoes area has declined from 9,625 ha in 1992 to about 6,500 ha in 2000, and its share is now about 4.9 % of the UAA. Concerning fruits and vegetables, self-sufficiency in Cyprus is above 100 %. For fruits there is a significant surplus available for exports.

In terms of extent of land the most important non irrigated crops are cereals and wine producing vineyards. These are followed by two very important irrigated cultivations aimed for export, potatoes and citrus. A substantial area is also cultivated with vegetables, mainly tomatoes, cucumbers, foliar etc. Deciduous trees such as apples, pears, peaches, cherries etc., are cultivated in mountainous and semi-mountainous area. The extent of table-grapes has been reduced in the last few years due to export problems.

In terms of value, potatoes are first with a mean value of €44.5 million followed by tomatoes, cucumbers and melons with a value of about €39.3 million. The third place is held by cereals followed by citrus. These are followed by the wine-producing vineyards, the deciduous and the table-grapes. Although it is difficult to compare in terms of extent due to the scattering of trees, the three traditional cultivations of Olive trees, Carobs and Almond trees are quite important as part of the traditional agri-environment and their contribution to its sustainability. Olive trees have become

very important in the last few years and new irrigated plantations have been developed. As shown in the Table 2 below, the extent of planted area with Olive trees has overtaken that of Citrus.

Citrus plantations have been reduced in the last few years due to international competition, and the extended drought conditions in the island. Potatoes are facing similar problems and need for cultivation restructuring in the same way as for citrus.

Table 2 presents cultivated areas, production volumes and gross output from the cultivation of different crop types, according to the 2002 Agricultural Statistics.

Table 2: Crop production in 2002

Crop	Area (ha)	% of Area	Production (tons)	Value of production (million €)	% in value of production
Cereals	59,200	44.58%	141,750	32,7	10.34%
Legumes	847	0.64%	3,358	3,2	1.03%
Industrial Crops	405	0.30%	1,658	2,8	0.89%
Fodder Crops	23,233	17.49%	95,048	7,9	2.51%
Straw		0.00%	121,000	5,2	1.63%
Potatoes	5,715	4.30%	148,500	44,2	13.96%
Other Vegetables	3,007	2.26%	97,440	62,1	19.61%
Melons	965	0.73%	50,100	14,1	4.46%
Grapes	15,055	11.34%	62,400	17,4	5.49%
Citrus	5,495	4.14%	137,800	34,8	11.00%
Fresh Fruit	3,638	2.74%	38,290	42,4	13.38%
Nuts	4,180	3.15%	2,345	3,6	1.14%
Other Tree Crops	10,950	8.25%	34,700	24,1	7.62%
Flowers and plants	117	0.09%		22,0	6.93%
Total Crop Production	132,807			316,7	

Source: Agricultural Statistics, 2002 (converted to € at 1 C£=1.71 €)

Developments in the production levels of the main crops during 2002 are outlined below:

- Rain fed crops exhibited satisfactory yields in 2002 with a significant increase of the cereal production, which rose to 141,750 tons from 127,380 tons in 2001.
- Wine grapes production decreased to 49,000 tons in 2002 compared to 73,200 tons in 2001, while olive production increased by 57.1% and reached 27,500 tons in 2002 compared to 17,500 in 2001.
- The production of carobs increased from 2,850 tons in 2001 to 7,200 tons in 2002, while the production of almonds increased dramatically by 300.0% reaching a new level of 2,000 tons in 2002 from 500 tons in 2001.
- Most irrigated crops exhibited steady production levels. An increase in the volume of production was recorded in the case of potatoes and citrus fruit.
- Potato production rose to 148,500 tons in 2002 compared to 121,000 tons in 2001. Potato production income increased to 44.3 million € in 2002 from 42.75 million € in 2001. The percentage increase in the value is much smaller than that of production due to a significant decrease in the price of exported potatoes.
- Vegetables experienced slight changes in the volume of production while the production prices decreased by 6.3%.
- Citrus fruit recorded an increase in terms of volume of production in 2002. The total citrus fruit production increased by 12.7% to 137,800 tons in 2002, from 122,300 tons in 2001. Citrus fruit exports reached 73,119 tons in 2002, thus recording a 12.2% increase from 2001. The prices secured by citrus producers increased by 6.9% during 2002.

- Other fresh fruit experienced an increase of 8.3% in relation to 2001 in terms of volume production, while prices decreased by an average 3.0% in 2002. Considerably higher prices were recorded for cherries, while apricots and “kaisha” (an apricot variety) recorded a significant decrease in their price.

Table 3 presents the planted vineyards in the period of 1997 to 2004 and Table 4 the extent of vineyards according to variety for the last four years.

Table 3: Planted vineyards by year (in hectares)

Year	Extent (in hectares)
1997	222
1998	179
1999	220
2000	211
2001	261
2002	183
2003	501
2004	202

Source: Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004 (converted to hectares and rounded)

Table 4: Extent of Vineyards per variety in hectares

Wine producing Variety	2001	2002	2003	2004
Xinisteri	2697	2676	2664	2657
Malaga	394	385	381	379
Moschato	2	2	2	2
Promara	1	1	1	1
Palomino	187	184	180	180
Petro Ximenez	1	1	1	1
Plant X	36	23	18	18
Ugni blanc	17	16	14	14
Malvasia lunga	26	17	9	9
Malvasia grossa	14	10	9	9
Jaen	1	1	1	1
Riesling	28	28	29	29
Semillon	30	31	47	48
Chardonay	54	61	111	119
Sauvignon	9	10	15	16
Black (Mavro)	10864	10454	9774	9214
Maratheftiko	43	50	77	125
Ofthalmo	139	151	180	184
Lefkada	50	61	98	117
Kanella	0	0	0,2	0,2
Vamvakada	0,1	0,1	0,1	
Carignan noir	909	910	916	916
Grenache noir	178	175	177	177
Oeillade	129	126	128	128
Mataro	204	220	229	233
Cabernet franc	384	413	487	491
Cabernet Sauvignon	303	316	404	412
Moschato Hambourg	4	4	4	4
Shiraz	53	94	169	197

Merlot noir	19	23	43	53
Alicante bouschet	126	143	150	151
Camay	0	1		
Other	3	2	22	23
Collection wine producing	1	5		
Root crop	14	14		
TOTAL	16920	16608	16340	15908

Source: Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004 (converted to hectares and rounded)

- Main categories of production (quantity, value)

Table 5 presents the annual gross output and value added from crop production for the period 1999-2002.

Table 5: Annual gross output and value added for crop production (current prices)

Gross output	1999	2000	2001	2002
Current prices (million €)	297,7	278,8	321,1	314,5
% Share over the total	3.3%	2.9%	3.1%	2.9%
Value added (million €)	210,2	195,2	227,8	225,1

Source: Agricultural Statistics, 2002(converted to € at 1 C£ = 1.71 €)

The Statistical Service carried out a general agricultural census during October 2003 to March 2004. The preliminary results indicate the total extent of land used for agriculture to be 156379 hectares of which 109742 hectares were with annual crops and 40787 with permanent plantations. Land of 5399 hectares extent was fallow and the remaining land of 451 hectares was taken up by family vegetable gardens, barren rangeland and permanent pastures.

From the total land in use, 68764 was privately owned and 87615 hectares was rented or at some other form of ownership. The total land consists of 221,917 plots which correspond to 5 plots per usage with a mean extent of 0,7 hectares per plot or 3,5 hectares per usage.

The main crops were: cereals 73846 hectares, vineyards 12528 hectares, olive trees 12611 hectares, citrus 4865 hectares, almonds and walnuts 5201 hectares and other deciduous fruit trees 3982 hectares.

The vineyards and wine producing sector had always a prominent role in Cypriot agriculture not as much due to its contribution to the GNP but due to its larger economic, social, environmental and cultural aspect since wine producing has always been one of the major and traditional occupations of the Cypriot farmer.

The importance of this sector lies in the fact that barren, rocky and sloping lands in mountainous and semi-mountainous areas are being utilized and developed. **The vineyards are an essential part of the local landscape and contribute to its conservation. It prevents erosion of the soil and ensures the presence of people in marginal areas of the country and the development of an alternative (rural) tourism in conjunction with the preservation of the environment.**

The increasing trend of abandonment of vineyards continues. Estimates of 2004 bring this to a total of 3000 hectares which is 20% of the total wine producing extent of vineyards. The low prices, migration of peasants to urban areas, high production costs, aging of the rural population and the change of land use accentuate the trend of abandonment.

The reduction of vineyards in the last few years is not only due to abandonment but also due to grubbing (uprooting) through specialized subsidy plans or a natural one. The extent of reduction fluctuates as a result of the implementation of measures for the restructuring of vineyards, the grubbing of previous years or the natural renewal of vineyards and the conversion to new varieties.

Irrespective of the sectors problems there is still interest by the farmers for replanting older vineyards or for changing to new varieties. In total 499 permits have been granted for replanting of 202 hectares of vineyards in 2004 whilst for 2005 an area of 338 hectares is planned.

- Production and Use of Grapes

Table 6 shows a comparative table of grape production in the last two years. The production of grapes in 2004 was higher by 27,656 metric tonnes or 34% in comparison to that of 2003. The production of table grapes has been estimated to 21,118 metric tonnes or 19.5% and of wine making varieties to 87.398 tonnes or 80.5% of the total production.

The total quantity received by the wine factories in 2004 was 74.051 tonnes compared to 63.674 in 2003 or an increase of 16%. The annual sales of Cyprus wines are shown in Table 7 whilst the production of “Koumandaria” is shown in

Table 8.

The Wine producing factories continue to play a very important role in the market and absorption of the annual production of grapes.

Table 6: Comparative table of grape production in 2003 and 2004

Use of Grapes	Quantity in tonnes	
	2004	2003
Production of wine, alcohol and concentrated grape juice	71,997	63,083
Export(table grapes)	1,101	1,593
Canning	614	300
Production of Koumandaria	1,853	591
Production of sultanina raisin	200	143
Production of wine distillation 49% vol.	500	150
* Non harvested grapes	13,000	0
"Local consumption and production ofVine and wine products for private use	19,050	15,000
Total	108,315	80,860

* Estimate of production on the basis of site investigation. The estimate was made on the basis of data from previous years.

Source: WPC Annual report 2004

Table 7: Annual sales of Cyprus Wines (in thousand litres)

Year	Sales in Cyprus	Export	Total
1995	8439,1	90379,8	98818,9
1996	7811,9	45411,6	53223,6
1997	7752,3	35455,0	43207,3
1998	8151,9	24230,4	32382,3
1999	8599,6	24586,0	33185,6
2000	8865,4	28344,4	37209,9
2001	9233,1	20247,9	29481,0
2002	11206,7	17137,7	28344,4
2003	8375,5	22212,3	30587,8
2004	8231,2	20585,8	28817,0

Source: Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004

Table 8: Production of Koumandaria wine (in kilos)

Year	Production (in kilos)	Subsidy (€)
2000	257600	63662
2001	253495	65337
2002	155925	39304
2003	209250	52784
2004	564179	NIL

Source: Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004 (converted to € at 1 C£= 1.71 €)

Finally, in respect of stock breeding, the census indicates 882 piggery units (433,038 pigs), 320 units of cattle (61,053 cows), 1,782 shepherds (262,243 sheep), 3,178 goat shepherds (360,203 goats) and 9,449 units of poultry (4.5 million chickens) were registered.

- Main agricultural product import and export trends

The orientation towards exports of major sectors of the Cypriot agriculture has affected agriculture in general. The opening of the European market to new competitors with lower labour costs, subsidies to the European producers, the increase in production costs and the intensive competition from other sectors of the economy within the island and other reasons such as policies not favouring innovations and product quality improvement have led to the undermining of the competitiveness of Cypriot products and the substantial reduction of the value of exports.

Table 9 shows the value of exports of major agricultural products in the period of 1990 to 2001.

Year	Citrus	Potatoes	Grapes	Wine	Dairy	Meat and meat	Total
Year	Citrus	Potatoes	Grapes	Wine products	Dairy Products	Meat and meat products	Total
1990	33397	49687	9620	18093	4292	15139	107460
1992	33302	48087	5065	12493	4280	494	88746
1993	23634	34445	5905	18935	4640	896	89400
1994	23659	40665	3612	18590	7623	893	99006
1994	28329	40663	3643	14496	8328	1423	102145
1996	30930	43638	3568	16498	8830	3445	108793
1997	30970	44420	2364	14830	10925	3693	108423
1998	29370	34480	4204	12936	10928	5803	88433
1998	23660	33998	4263	14063	12438	3708	80406
1999	23863	23098	2060	14602	12904	6208	80466
2000	25866	29044	2676	10869	14004	6202	89435
2001	25166	29944	2575	10954	14634	5997	89271

Table 9: Export of major agricultural products, 1990 – 2001 (in €)

Source: Department of Statistics and Research, Ministry of Finance (converted to € at 1 C£= 1.71 €)

The same information is shown in Figure 2 below where it is shown that within the period of 1990 to 2001, the value of Cypriot exports was reduced in current prices by 32.7% for citrus, 39.6% for potatoes, 71.5% for table grapes and 31.9% for wine products. Contrary to this, dairy products showed an increase of 250% and meat products of 290%. It is notable that in the last decade the sector of animal production expanded by 67.7% in terms of gross value and by 59.8% in terms of added value in contrast to the sector of crop production where the increase in the same indexes was limited to 20.8% and 14.2%.

Table 10 shows the major exports of agricultural products and Table 11 the major imports in 2004.

Table 10: Major crops exported in 2004

Product	Tonnes
Potatoes	85,172
Citrus	74,532
Fresh vegetables	7,684
Fruit juice	4,978
Carobs	3,849
Melons	1,979
Olives and olive products/oil	1,684
Table grapes	1,101
Beet root	73
Various	10,195

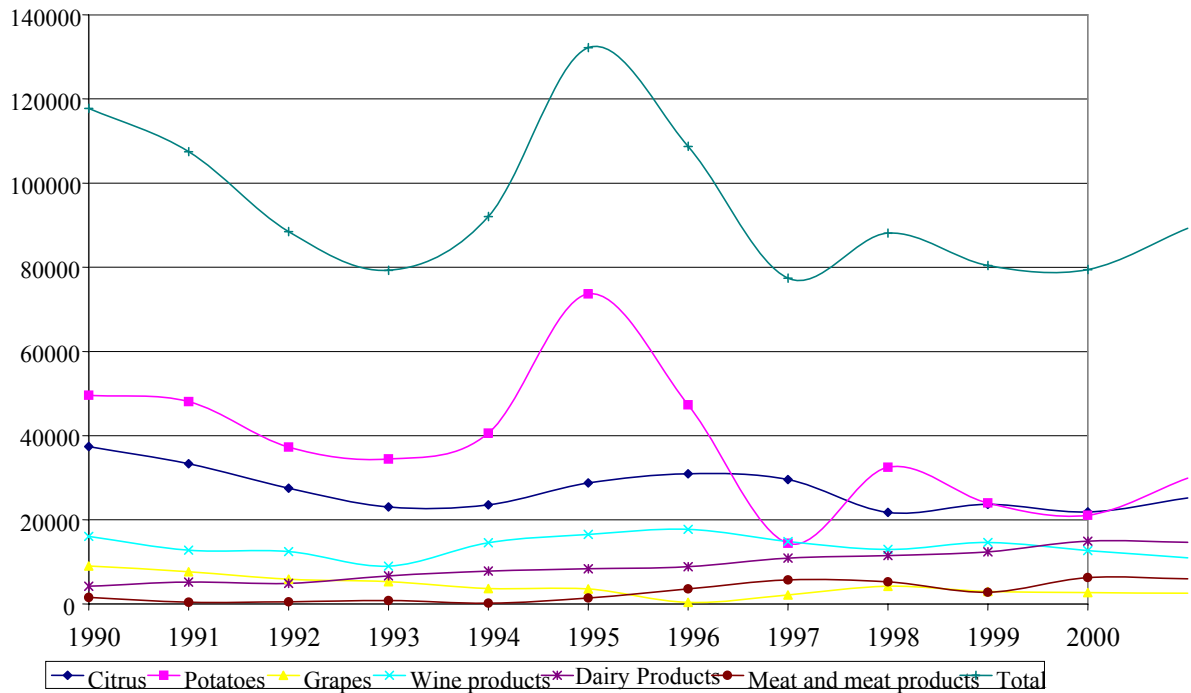
Source: Annual report for 2004 of Ministry of Agriculture, Natural Resources and Environment

Table 11: Major crops imported in 2004

Product	Tonnes
Oils	13,861
Fresh fruit and vegetables	8,522
Potato seed/ Potatoes/ sub-products	7,300
Juices (concentrated or non concentrated)	4,978
Rice	3,840
Legumes	2,803
Frozen agricultural products	2,136
Aromatic seeds	1,733
Dry nuts	1,723
Onions/garlic	1,562
Non-roasted coffee beans	1,471
Cereals	1,084
Vegetable/flowers/turf grass seeds	750
Dry fruits	750
Spices	169
Honey	18
Tea/herbs	87

Source: Annual report for 2004 of Ministry of Agriculture, Natural Resources and Environment

Table 12 presents the development of wine producing potential in the period of 1998 to 2004 and Table 13 the production of grapes for the period of 1997 to 2004. Subsidies paid by Government to wine producers and vineyard farmers for the period of 1991 to 2004 are shown in Table 28 in Appendix 3.

Figure 2: Exports of major agricultural products**Table 12: Development of wine-producing potential (in hectares)**

Year	Local varieties	New varieties	Total
1998	15051	3010	18061
1999	14083	3144	17226
2000	14224	3256	17480
2001	14183	2731	16914
2002	13777	2825	16603
2003	13176	3161	16337
2004	12701	3207	15908

Source: Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004 (converted to hectares)

Table 13: Production of grapes (tonnes)

Year	Production in tonnes	Wine producing grapes in tonnes
1997	102621	
1998	125422	
1999	107339	
2000	110768	90566
2001	90530	74889
2002	60546	47141
2003	80860	69615
2004	108315	87171

Source: Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004

- Export of vineyard and wine products

The value of export of grapes and wine products for 2004 shows a decrease of the order of 2343490€ or 16.5 % in comparison to 2003. The amount and value of exported “must” increased in contrast to the other products. It is considered that the Measure of Support of the Market

Mechanism in the sector for preparation of concentrated rectified “must” contributed as a basic incentive for its utilization.

Table 14 shows a comparative list of exports for the last two years

Exports and imports for previous years are given in Table 15 based on statistical information available at the Food and Agriculture Organization data base.

Table 14: Grapes and wine products exports for 2003 and 2004

Product	2004			2003		
	Quantity		Value CIF €	Quantity		Value CIF €
Wines	136375	hlitre	7293107	220229	hlitre	9839020
Table	103938	”	6051008	92472	”	5612678
Aromatic	29388	”	871248	120825	”	3390215
Fortified	3049	”	370851	6932	”	836127
Koumandaria	1892	”	745993	1894	”	608235
Concentrated must	64321	”	1823614	9547	”	71892
Natural grape juice	2329	”	158185	5336	”	254580
Brandy	12,751	Anhydrous litres	88994	17,181	Anhydrous litres	130706
Ouzo	497		5995	2,682		20908
Ethyl Alcohol	8		48	103		687
Wine Distillate			0			0
(eau-de-vie de vin}	0		0	943,146		582400
Zivania	60		1212	0		0
Other alcoholic	13,784		71196	10,097		62482
Sediment	0	kilos	1036648	23,622	kilos	1770
Table grapes	1,102,230	”	55667	1,593,200	”	1505
Canned grapes	694,413	”	1036648	431,153	”	384719
Total			11781666	Total		14125154

Source: WPC Annual report 2004 (converted to € at 1 yf= 1.71 €)

Table 15: Grapes and wine products imports/exports for 2000 and 2002

Imports (grapes)						Exports (grapes)					
MT			1000\$			MT			1000\$		
2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
		1			1	3807	2999	958	2521	2426	903
Imports (Wine+similar)						Exports (Wine+similar)					
MT			1000\$			MT			1000\$		
2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
938	11257	1109	4279	4902	5191	24643	20239	17439	10824	9072	8801

Source FAO Trade Yearbook Vol. 56-2002

- Brief presentation of the organisation of agriculture in the country (Ministry, Research centres, Unions of farmers, etc.)

The responsibility for environmental and agricultural policies is vested within the same Ministry – the Ministry of Agriculture, Natural Resources and Environment (MANRE). MANRE is composed of a number of departments, including Agriculture, Animal Husbandry, Agricultural Research Institute, Geology, Fisheries, Forestry, Water Development and the Meteorological Service. MANRE is responsible for the management and sustainable use of natural resources as well as being the coordinating Ministry for the protection of the island's environment. Strategic environmental decisions are taken by the Council of Ministers, which includes the Environment

Council - an advisory body chaired by the Minister of Agriculture, Natural Resources and Environment and the Environment Committee, chaired by the Director General of MANRE.

The departments in MANRE have specified roles and integration between them is variable. The Agricultural Research Institute, for example, does not only undertake studies on improving production, it also undertakes studies on environmental interactions with agriculture, e.g. on soils and water use.

The Water Development Department is responsible for implementing water policy. It implements policies relating to the protection of water resources from pollution. It also collects processes and classifies hydrological and hydrogeological data as well as other data necessary for water protection. The Department has a number of divisions. These include a division on the Operation and Maintenance of Irrigation Systems, thus requiring integration with the Agriculture Department in the implementation of agricultural policy development.

The Environment Service operates under MANRE and is the coordinating agency for government programmes for the protection of the environment. It advises on environmental policy and is mandated to ensure the implementation of environmental policies. The Environment Service also has the responsibility for collation and provision of environmental information to other Ministries, the public and international bodies such as the EEA, for which it acts as the National Focal Point for Cyprus. Currently, the Environment Service is producing Cyprus's first state of environment report. Only air quality issues are dealt with outside MANRE and air quality is not of primary importance in terms of the impact of agriculture on the environment in Cyprus

Administratively, the Ministry is separated into three sectors, namely the Sector of Agriculture, the Sector of Natural Resources and the Environment Sector. Under each sector fall the Departments and Services which, in the framework of their competences, apply the Governmental policy.

The **Sector of Agriculture** includes the Agricultural Research Institute, the Department of Agriculture responsible for promoting agricultural production, agricultural statistics and agri-environment measures, the Department of Fisheries and Marine Research responsible for marine water quality monitoring and marine biodiversity, the Veterinary Services Department, the Land Consolidation Department and the Organization of Agricultural Insurances.

The **Sector of Natural Resources** comprises of the Water Development Department responsible for surface freshwaters, groundwater and their development for potable waters and irrigation, the Geological Survey Department responsible for monitoring groundwater quality and quantity, the Forestry Department responsible for forest management and monitoring biodiversity in forested areas, the Meteorological Service and the Mines Service.

The last Sector of the MANRE, the **Environment Sector** includes the Environment Service, which advises on issues of environmental policy and coordinates plans and programmes that deal with the environment (Andrew Farmer, IEEP, 2002).

The Department of Agriculture is structured into a central, district and regional level services. In the Central Service new arrangements have been effected so that the Department can accomplish its new responsibilities after the accession of Cyprus to the EU and carry out the implementation of the Rural Development Plan (RDP). It comprises of 15 Special Divisions of the main sectors of agriculture and animal husbandry. Under its supervision there are a number of state farms, stations and nurseries with development objectives of crop or animal husbandry directions. There are also auxiliary branches such as Chemical laboratory, workshops, accounts branch etc.

The six District Agricultural Offices look after the implementation of agricultural policy and the promotion of new improvements in the agricultural and animal husbandry sector through intensive training and steering of farmers as well as the promotion of various development plans and

schemes. The six agricultural districts are subdivided into agricultural regions including a number of rural communities depending on their size and the intensity of crop cultivation.

The number of research centres in the island is limited. A leading position is held by the Agricultural Research Centre (ARI) which was established in 1962 as a cooperative project between the Government of Cyprus and the United Nations Development Fund, with the Food and Agriculture Organization of the United Nations acting as the executive agency. It was entrusted to the Government of Cyprus in 1967 as one of the Departments of the Ministry of Agriculture, Natural Resources and Environment.

ARI undertakes applied and basic research within the wider domain of plant and animal production. The Institute is organized into two divisions. The production division includes the disciplines of crop breeding and genetics, fruit tree and vegetables production, viticulture, floriculture, animal production, biotechnology and tissue culture. The support division provides services and scientific support to the production division. Among its disciplines are plant protection (entomology, plant pathology, nematology and weed science), insect toxicology and pesticide residues, soil fertility, plant nutrition, irrigation, environmental impact, experimental statistics and agricultural economics.

Table 16 presents a list of farmers' unions /organizations / cooperative societies that are recognized by MANRE. The association of these is based on the type of crop or product. There are also 4 major country wide farmers Unions which are politically affiliated to the local political Parties. These are "PEK", "EKA", "Agrotiki" and "Panagrotikos".

Table 16: Established Farmer Unions Recognized by MANRE

No.	Name	Recognized as	Product Category	Cyprus National Regulation	Council Regulation (EC)
1	CYPROFRESH CITRUS SEDIGEP (P.O.) LTD	PRODUCERS' ORGANIZATION	CITRUS	001/10.09.2004	2200/1996 & 1432/2003
2	FASSOURI PRODUCERS' GROUP LIONHEART LTD	PRODUCERS' GROUP	CITRUS	002/10.09.2004	2200/1996 & 1432/2003
3	GENESIS CITRUS COMPANY LTD	PRODUCERS' GROUP	CITRUS	003/10.09.2004	2200/1996 & 1432/2003
4	PERSEPHONI CITRUS COMPANY GROUP LTD	PRODUCERS' GROUP	CITRUS	004/10.09.2004	2200/1996 & 1432/2003
5	GOLDEN TREE PRODUCERS' GROUP LTD	PRODUCERS' GROUP	CITRUS	005/10.09.2004	2200/1996 & 1432/2003
6	PRASINOS KAMPOS PRODUCERS' GROUP LTD	PRODUCERS' GROUP	CITRUS	008/23.09.2004	2200/1996 & 1432/2003
7	ORIZONTAS PRODUCERS' GROUP LTD	PRODUCERS' GROUP	CITRUS	007/23.09.2004	2200/1996 & 1432/2003
8	SEDIGEP ARGAKAS LTD	PRODUCERS' ORGANIZATION	FRUITS AND VEGETABLES	009/15.10.2004	2200/1996 & 1432/2003
9	COOPERATIVE SOCIETY OF BANANA PRODUCERS OF PAFOS LTD	PRODUCERS' ORGANIZATION	BANANAS	011/01.11.2004	404/1993 & 919/1994
10	COOPERATIVE ORGANIZATION OF TOBACCO PRODUCERS LTD	PRODUCERS' GROUP	RAW TOBACCO	012/26.11.2004	2075/1992 & 2848/1998
11	SEKEP LTD	PRODUCERS' ORGANIZATION	OLIVE OIL & TABLE OLIVES	013/30.11.2004	136/1966 & 1334/2002
12	COOPERATIVE SOCIETY OF AGRICULTURAL PRODUCTS SUPPLIERS (SEDIGEP) LYSIS LTD	PRODUCERS' ORGANIZATION	FRUITS AND VEGETABLES	014/13.12.2004	2200/1996 & 1432/2003
13	COOPERATIVE SOCIETY OF AGRICULTURAL PRODUCTS SUPPLIERS (SEDIGEP) PARALIMNIOU LTD	PRODUCERS' ORGANIZATION	FRUITS AND VEGETABLES	015/13.12.2004	2200/1996 & 1432/2003
14	COOPERATIVE SOCIETY OF AGRICULTURAL PRODUCTS SUPPLIERS (SEDIGEP) SOTIRAS LTD	PRODUCERS' ORGANIZATION	FRUITS AND VEGETABLES	016/13.12.2004	2200/1996 & 1432/2003
15	COOPERATIVE SOCIETY OF AGRICULTURAL PRODUCTS SUPPLIERS (SEDIGEP) PITSILIAS LTD	PRODUCERS' ORGANIZATION	FRUITS AND VEGETABLES	017/13.12.2004	2200/1996 & 1432/2003
16	SEASONAL CROP PRODUCERS' GROUP SPRING PUBLIC LTD	PRODUCERS' GROUP	FRUITS AND VEGETABLES	018/13.12.2004	2200/1996 & 1432/2003
17	P.O.P.(Pancyprian Group of Potato Producers) THE CYPRUS POTATO PUBLIC COMPANY LTD	PRODUCERS' GROUP	POTATOES	019/13.12.2004	

Source: Department of Agriculture, MANRE

Additionally, there are unions and associations connected with the wine and grape production. These are Association of Regional Wineries “VAKHOS”, Association of Wine Producers, and the Association of Wine and Spirits as listed in Table 24 in Chapter 1.3.3 of this report.

1.2 Brief description of the environment in agriculture

- Total use of fertilisers

Most of the fertilizers used in Cyprus are imported. The annual imported quantities of Phosphorous and Potassium are generally of the order of 3500 to 2500 tonnes, respectively. The quantities of imported Nitrogen present a large variation although in the last few years these have been reduced and they are now of the order of 11000 tonnes.

The use of sludge from treated urban wastes is controlled by the Control of Waters and Soils Law (106(I)/2002) and the relevant Regulations (517/2002 which are harmonized with the Directives 86/278/EC and 91/962/EC).

The overemphasis accorded to certain areas with wine producing grapes, citrus and cereals, for very high intensity of production results to a high use of fertilizers, pesticides and other agricultural chemicals which leads to increased costs and disturbance of sustainable balance of the environment.

Fertilizer imports during the period 1992 – 2001 are presented in Table 17. Fertilizer consumption in the island in the period of 1961 to 2001 is shown on Figure 3. Except for a peak in 1995, imported quantities have remained more or less constant during the period 1992 – 1998, at an average of about 14,000 tonnes N per year. However, recently imports have reduced so that imported quantities in 1999 – 2001 were 18% less than the average of the previous years. This could be due to a number of causes, including the use of stocks from previous years, the reduction of the area planted with potatoes, the uprooting of some citrus and deciduous orchards, and lack of irrigation water.

Imports of fertilizers containing phosphorus, except for two peaks in the years 1995 and 1998, remained more or less constant during the period 1992 – 1998, with the quantity of fertilizer element P being around 4,000 tonnes/year. There was a decrease in P imports in 1999 (3,260 tonnes of P) which continued into the next two years (2,810 tonnes in 2000 and 3,133 tonnes in 2001). Interestingly, in 1998 phosphorus imports were about twice the average. Imports of potassium fertilizers, in contrast with N and P, remained constant during the same period, ranging from 2,000 to 2,500 tonnes of fertilizer element K per year.

Table 17: Fertilizer Imports during the Period 1992–2001 (Tonnes)

Year	Nitrogen (N)	Phosphorus (P)	Potassium (K)
1992	14760	4401	2071
1993	16189	4415	2076
1994	14289	4952	2587
1995	20526	5348	2651
1996	13628	4668	2510
1997	11126	3562	2075
1998	14601	6075	2662
1999	11561	3260	2360
2000	10573	2810	2066
2001	12359	3133	2194

Source: Council of Fertilizers, Department of Agriculture

The main types of fertilizer imported are: Simple fertilizers: ammonium sulphate (21–0–0), ammonium nitrate (34.5–0–0 and 26–0–0), urea (46–0–0), potassium sulphate (0–0–50), triple superphosphate (0–44/46–0), and mixed fertilizers: 20–20–0, 20–10–10, 14–22–9, 13–0–46, 20–20–20/19–19–19.

The most heavily imported fertilizer is the mixed type 20–20–0 which is mainly used for the fertilization of cereals and fodder crops for grazing. Therefore, N and P nutrient imports can be significantly affected by cereal “good” and “bad” years. Imports of N and P fertilizers have considerably declined in 1999 and 2000. It remains to be seen whether this marks the beginning of a future pattern.

In Figure 3, a timeline of fertilizer consumption in Cyprus is presented. Annual fertilizer consumption data refer to the use in metric tons of the nutrients nitrogen (N), potash (K_2O), and phosphate (P_2O_5). Fertilizer consumption is defined by the Food and Agriculture Organization of the United Nations (FAO) as “the quantity of fertilizer in metric tons of plant nutrient consumed in agriculture”.

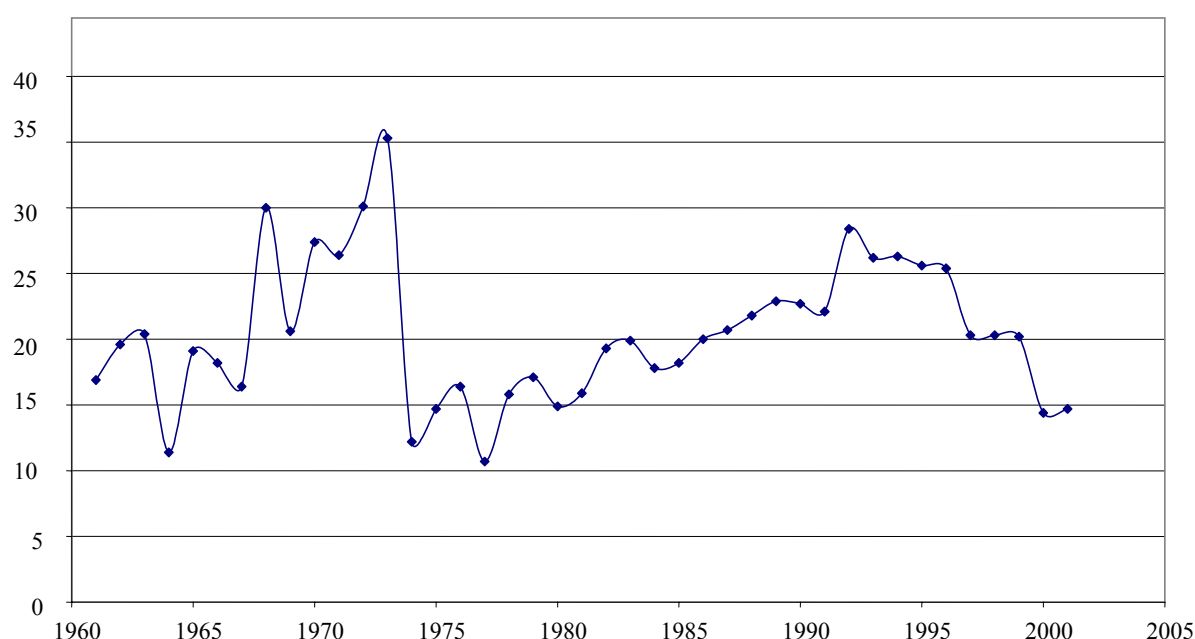
Similarly, in

Figure 4, the Fertilizer intensity in kg/ha is presented. Fertilizer use intensity is calculated by dividing total fertilizer consumption by the total area of arable and permanent cropland. Figures are given in terms of kilograms per hectare.

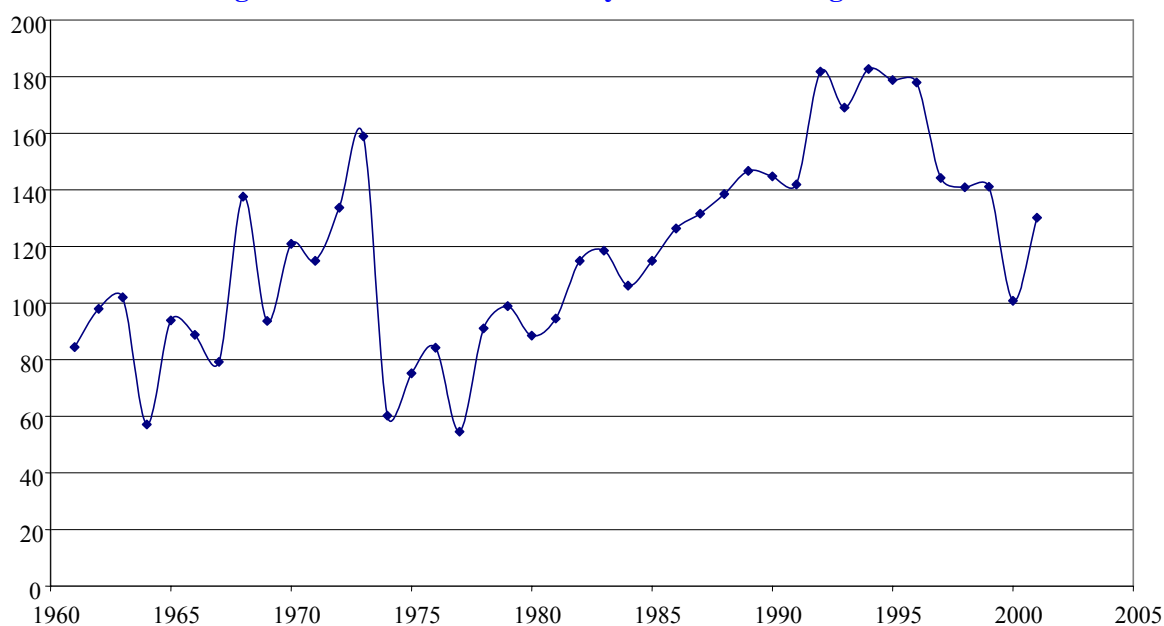
The estimated use of Nitrogen chemical fertilizer for the fertilization of various crops for the period of 1992 to 1999 is presented in Table 19. The average annual quantities of nitrogen fertilizer applications is estimated on the basis of data on imported quantities (Table 17) and the land under cultivation for the same period.

In terms of the economics of wine- grape production in Cyprus, fertilizers is one of the most important material inputs. The actual cost of fertilizers varies between €44.5/ha for Shiraz and Oeillade and €80/ha for Xinisteri (1998 prices). A wide range of fertilizers are used in wine grape cultivation. They are used in quantities ranging from 168 to 391 kg/ha. The most commonly used types are 20-10-10, 21-0-0, 14-22-9 and 20-20-0 (Table 18).

Figure 3: Fertilizer Consumption in Cyprus 1961 – 2001 in ‘000 metric tons



Source: Food and Agriculture Organization of the United Nations (FAO). 2004. FAOSTAT on-line statistical service.
Rome: FAO. Electronic Database available at: <http://apps.fao.org>.

Figure 4: Fertilizer Use Intensity 1961 – 2001 in kg/ha

Source: Food and Agriculture Organization of the United Nations (FAO). 2004. FAOSTAT on-line statistical service.
Rome: FAO. Electronic Database available at: <http://apps.fao.org>.

Table 18: Quantity of chemicals, weedicides and fertilizers per ha of wine-grapes

Chemicals	No of Observations	Quantity (kg/ha)
Sulfur	437	79
Staktothion	346	83
Samithein	27	75
Saptithein	2	220
Dursban	100	74
Captan	14	12
Dursban –Pyrifos	149	89
Sumit – Fungicide	4	74
Monitor	3	1
Folidol	5	1.3
Topas	2	20
Supracide	1	0.9
Pyrifos	153	59
Pyrofan	43	125
Weedicides	No of Observations	Quantity (kg/ha)
Simazine (dust)	57	69.0
Simazine (liquid)	2	1.3
Roundup	37	2.4
Gromoxone	11	0.5
Fusilade	2	1.9
Diuron	1	4.9
Reglone	1	31.0
Recal	4	1.4
Touch down	30	2.0
Korason	1	128.0
Control	2	2.6
Simaron	41	66.0
Caragard	10	87.0
Galant	1	1.3
Hrboxone	2	1.3
Piece work	3	58.0

Fertilizers	No of Observations	Quantity (kg/ha)
20-10-10	158	330
20-20-0	85	298
26-0-0	36	282
20-20-10	4	307
21-0-0	116	265
14-22-9	103	319
34.5-0-0	62	212
0-48-0	37	295
16-20-0	19	272
4-21-21	38	298
46-0-0	3	269
15-15-6-4	4	291
0-0-52	19	272
6-8-8	4	298
20-10-10-4	8	391
2-21-21	16	323
16-16-8	7	342
7-21-21	4	168
Manure	14	148

Source: Markou M. and Papayiannis Chr. (1998)

- Total use of pesticides

In Figure 5, Pesticide Use Intensity refers to the amount of pesticide used per hectare of arable and permanent cropland. To calculate this figure, total pesticide consumption in agriculture is divided by the total area of arable and permanent cropland. Pesticide consumption is measured in metric tons of active ingredients. Pesticides are organized into eight categories, the sum of which is used to determine total pesticide consumption. The eight categories are: insecticides, mineral oils, herbicides, fungicides and bactericides, seed treatment - fungicides, seed treatment - insecticides, plant growth regulators and rodenticides.

Table 19: Average Annual Chemical Fertilizer Nitrogen Applications

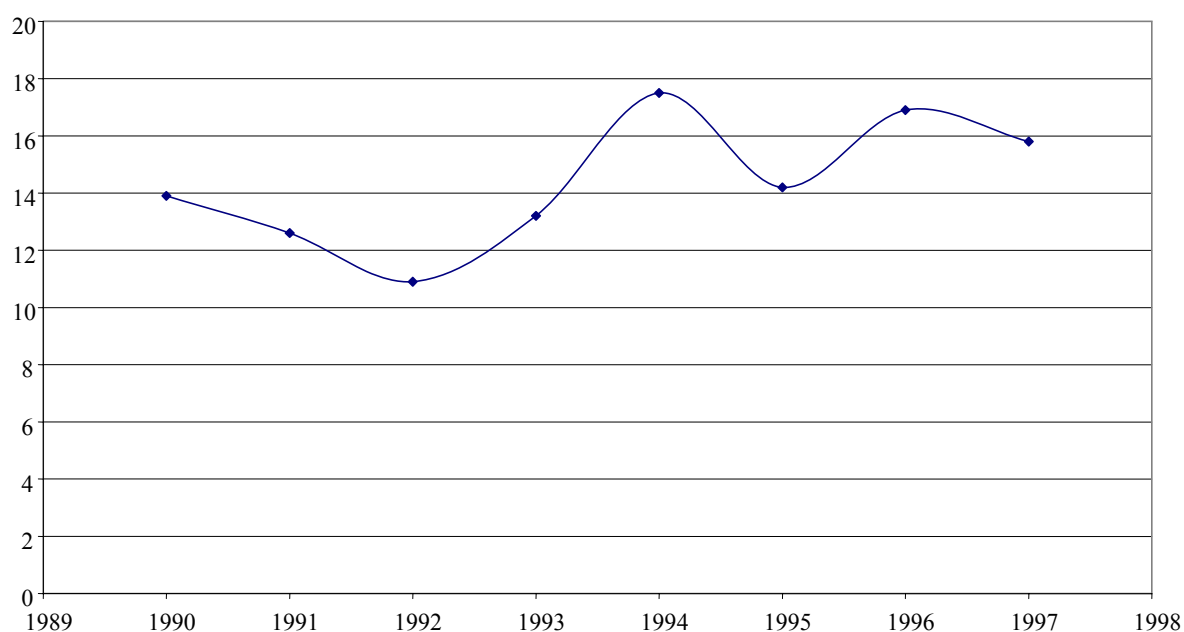
Year	N Kg/Ha	Total Planting Area (Ha)	Citrus, Potatoes & Vegetables (Ha)
1992	105	141177	20459
1993	117	138842	18859
1994	110	130377	17805
1995	155	132826	20550
1996	102	133775	19622
1997	83	130771	17147
1998	107	136343	16979
1999	85	133946	15901

Note by author: Vineyards must be included in vegetables since quantities correspond to all imports

Source: Council of Fertilizers, Department of Agriculture

In particular to the vineyard sector plant protection costs include mainly expenses for preventive dusting against powdery mildew and berry moth. Plant protection costs may average between €22 and €950 per ha for Shiraz and Xinisteri, respectively (1998 prices). The Shiraz variety, a Persian variety imported from France, is of low productivity but has shown to adapt to the local conditions without any particular sensitivity to enemies and diseases as opposed to the Xinisteri variety. Pesticides in the form of dust are mainly used for the protection of wine grapes. Among them, sulfur, stactothion, pyrifos and dursban-pyrifos are the most commonly used (Table 18).

Weed control is a common practice in vine cultivation as a result of limitations in labour availability and the high cost of machinery. Weed control cost averages to €35 to €43/ha (1998 prices) for all varieties except for Plant-X and Oeillade. Simazine and Round-up are the most commonly used weedicides (Table 18).

Figure 5: Pesticide Use Intensity in Cyprus in kg/ha – Available Data 1991 – 1997

Source: Food and Agriculture Organization of the United Nations (FAO). 2004. FAOSTAT on-line statistical service. Rome: FAO. Electronic Database available at: <http://apps.fao.org>.

In total, the mean quantities of pesticides used in the years of 2001 and 2002 were 2,600,000 kg/l of which 105,000 kg/l (100% active substance) were weedicides. The largest proportion of these weedicides was used for wine producing vineyards, citrus and cereals with impact on soils and aquifers.

Imports and exports of pesticides for the period of 1997 to 2002 are shown in Table 20 based on information from FAO.

Table 20: Import/export of Pesticides (´000 US\$)

Imports						Exports					
1997	1998	1999	2000	2001	2002	1997	1998	1999	2000	2001	2002
10550	12768	12142	10908	11020	11550	2790	2140	1995	746	497	1429

Source FAO Trade Yearbook Vol. 56-2002

- Total irrigated area

In 1994, the water managed area was estimated at 39,938 ha in the government controlled area, of which 39,545 ha were equipped for full or partial control irrigation. Less than 1% consisted of spate irrigation. It is estimated however, on the basis of current and potentially available water when the latter is fully developed, that this water managed area is already larger than the irrigation potential. In 1994 only 32,864 ha, or only 82% of the water managed area, were irrigated because of water shortages. Due to continuous water withdrawal and to increasing future water needs for domestic and industrial purposes, this area is unlikely to increase considerably. For this reason, estimates of an irrigation potential of 36,807 ha have been given, including the possible use of tertiary treated wastewater in the future and a greater water storage capacity in the new dams to be constructed. This irrigation potential area is slightly more than the actually irrigated area in 1994 but less than the total water managed area in 1994.

Spring water and groundwater was the first target of water resources development. Traditionally this water was cheap and easy to develop by individual farmers or farmers' Irrigation Divisions or Associations. In the former case the farmers develop the springs or tube wells on an individual basis, whilst in the latter case water resources are developed by a group of farmers who are then eligible for a government subsidy for the capital expenditure. In both cases a government permit is required prior to initiation of any water work. Normally these schemes are small and they cover 1 to 3 ha, although larger schemes have also been developed in recent years.

After independence in 1961 and following the full utilization of groundwater resources emphasis was placed on collecting and storing surface water during the winter and utilizing it throughout the year. In 1994, a little less than half the area was irrigated from surface water.

Public schemes, often based on the joint use of groundwater and surface water have been constructed since the late 1960s. They include:

- The Paphos Irrigation Project to provide annually 36 million m³ of groundwater and surface water to irrigate 4,600 ha;
- The Vasilikos Pendashinos Project to provide annually 17 million m³ of surface water to irrigate 1,525 ha and for the domestic water supply;
- The Khrysochou Irrigation Project to provide annually 18 million m³ of surface water to irrigate 2,790 ha;
- The Pitsilia Integrated Rural Development Project to supply water for irrigation of 850 ha and for domestic use;
- The Southern Conveyor Project intended to provide annually 65 million m³ of surface water to irrigate 11,244 ha and for the domestic water supply.

All public schemes are operated by the Water Development Department (WDD) of MANRE and the farmers are charged for the water on a volumetric basis. This is possible through the use of water meters which are monitored regularly by the WDD. Irrigation Divisions or Associations usually operate and maintain their own schemes and charge the users either on a volumetric or an hourly basis. Those irrigation works belonging to Irrigation Divisions, that are considered to be major or to involve safety factors or include small dams, are maintained by the government and one third of the operational and maintenance expenses is recovered from the Irrigation Divisions. Individual farmers, who possess their own source of water, manage the water resources themselves.

The irrigation network in Cyprus is highly efficient. It generally consists of closed systems with an overall conveyance efficiency averaging 90-95 %. Field application efficiency averages 80-90%. In parallel with the government's efforts to increase the water available for agriculture, emphasis was placed on the optimum utilization of water through improved irrigation methods. To encourage farmers to use improved irrigation methods the government offered incentives to participating farmers in the form of subsidies and long-term low interest loans for the purchase and installation of improved irrigation systems. In addition, through extensive demonstrations, the government convinced the farmers that improved irrigation methods, initially sprinklers for vegetables and the hose/basin method for tree crops, to be followed by micro-irrigation systems, not only saved water but also led to increased yields. As a result of these efforts, the area irrigated by surface irrigation methods has declined from about 13,400 ha in 1974 to less than 2,000 ha in 1995 while the area equipped for micro-irrigation has increased over the same period from about 2 700 ha to almost 35,600 ha. There are few margins for further improvements in water application efficiency. The areas irrigated by surface irrigation methods are mostly cropped with deciduous trees and are found in the hilly areas of the country. They are usually irrigated from small springs which do not lend themselves easily to the adoption of improved irrigation techniques.

In 1994, 21,746 ha consisted of large schemes (> 500 ha), 2,091 ha of medium schemes and 15 708 ha of small schemes (<100 ha).

The cost of irrigation development varies and depends on a number of factors. The average cost of irrigation development using tube wells varies from about € 3200/ha for up to one hectare, €1840/ha for two hectares to € 1385/ha for three hectares. This includes the cost of on-farm micro-irrigation systems. Excluding the cost of the dam, the development of surface water varies from € 1270/ha to € 2125/ha including on-farm micro irrigation system. The average annual cost of maintenance varies from € 244500/ha for private schemes (tubewells) to € 40-100/ha for public schemes.

The major irrigated crops are fruit trees and potatoes. For most crops the cost of irrigation water varies from about € 75 to 220/year per ha. Public schemes currently charge the consumer €

0.11/m³, whereas the Irrigation Divisions usually charge their members the full operating costs in addition to a basic charge for repayment of loans (when applicable). These costs are high and discourage the farmers from using irrigation for low value crops such as cereals, pulses, olives, almonds, carobs etc. The above-mentioned cost amounts, for example, to about 23 % of variable costs and 17% of total production costs for oranges or 17% and 11 % respectively for spring potatoes. These two crops are the major export crops of Cyprus and cover an area of about 2,200 and 4,600 ha/year respectively. When irrigation is used for other crops, for example wheat or barley, the yields also substantially increase. While the national average yields of rainfed wheat and barley were 0.55 and 0.92 tons/ha respectively in 1994, irrigated crop yields were 4 and 3 tons/ha respectively. Although irrigated crops cover only about 28% of the cultivated land, they account for 60-70% of the production earnings

- **Major agricultural issues in relation with the environment identified in the country (water quality, water quantity, soil quality and erosion, biodiversity evolution, habitats, landscape) with as far as possible quantitative data**

The agricultural issues and problems associated with environment can be prioritized in the following order:

1. Water Pollution
2. Water Use
3. Erosion
4. Biodiversity impacts

Table 21 provides some pertinent general information regarding agriculture in Cyprus.

Quality and quantity of water resources

Cyprus has an arid to semi-arid climate with large interannual fluctuation of rainfall with frequent series of low rainfall years and droughts. The mean annual rainfall is 500 mm but in the last 30 years this has reduced to 460 mm. The water development efforts made in this direction have already been described briefly earlier.

Of the available quantity of water resources, some 70% is used by agriculture, 25% for domestic purposes and the remaining for industrial and environmental purposes. The irrigated cultivated land represents the 22.5% of all the agricultural land.

Good quality irrigation water is provided from Government Water works (dams, lined ponds, wells) and private sources. Water abstracted from coastal aquifers is often of inferior quality due to sea intrusion caused by long term over-pumping.

Micro-irrigation covering currently more than 95% of the irrigated areas has resulted to substantial savings of irrigation water.

Government has reverted to sea water desalination since 1997 to balance demand with the supply and provide uninterrupted water supply for domestic purposes to the major urban centres. Furthermore, it is the stated policy of the Government for the reuse of tertiary treated urban waste water for agricultural purposes adding thus another important source of water.

The large refuge problem since 1974 has led to the intensification of land use and of production leading to over-abstraction of water from aquifers and deterioration of the natural resources, namely of water and soil. As a result, the quality of waters has been detrimentally affected (sea water intrusion, large fertilizer use, nitrate contamination etc).

The protection of Nitrate vulnerable areas is a must and according to the Directive 91/676/EC the pollution of waters by nitrates originating from agricultural practices needs to be controlled. In this direction legislation has been enacted for the Control of Pollution of Waters and Soils

(106(I)/2002) and a Code of Good Agricultural Practice has been approved together with an Action Plan and Sensitive Areas have been delineated.

The most pressing problem for water pollution arising from agricultural production derives from the spreading of manure from intensive pig farms on land. This is a far more important issue than the use of fertilizers, etc. This problem is made worse by the fact that many intensive pig farms are situated close to vulnerable aquifers. In Cyprus there are about 125 intensive pig farms, which is proportionately high compared to Member States.

These farms produce predominantly for the export market. Indeed such farms have also resulted in other environmental problems such as conflicts with housing development. The spreading of pig manure results in three water pollution problems: salt contamination (due to high levels in the manure); nitrate pollution; boron pollution.

The Code of Good Farming Practice contains recommendations on the use of fertilizers, pesticides and animal waste. MANRE is also looking towards the implementation of the Water Framework Directive as a means to tackle sources such as intensive pig farms in achieving water protection. Although there is significant input of phosphorus through fertilizers and animal waste this does not result in a problem for water quality. The typical Cypriot soils absorb phosphates readily, reducing leaching to watercourses. Even in areas where potatoes are farmed (which have one of the highest phosphorus demands of any crop) the clay soils bind excess phosphate. Experience in Member States has shown that any soil can reach capacity in terms of phosphate loading. However, it seems that this has yet to occur in Cyprus.

In Cyprus, the restriction on water availability for irrigation has led to farmers seeking alternative water sources, which has resulted in land and water contamination. Most importantly, Cyprus has a very long tradition of mining with a large number of abandoned mines (including many open-cast mines). In the depressions left by these mines, pools of water accumulate. Farmers use these for irrigation. However, such waters are often contaminated with metals from the mine works. Most notable is boron contamination, although there are also problems from arsenic and cadmium. Contamination from such irrigation has been monitored in groundwater aquifers (Eleftheriou 2001).

Table 21: General Information of Interest Regarding Agriculture in Cyprus

Cyprus	1958-1962	1963-1967	1968-1972	1973-1977	1978-1982	1983-1987	1988-1992	1993-1997	1998-2002
Permanent crops (1000 ha)	100	107	125	93	65	54	48	43	41
Cultivated area (arable land and permanent crops) (1000 ha)	200	207	225	196	168	157	156	141	113
Agricultural water withdrawal (10^9 m³/yr)				0.13	0.14	0.155	0.166	0.156	0.17
Agricultural water withdrawal as part of total (%)				83.87	79.1	77.5	73.45	73.93	70.83
Desalinated water produced (10^9 m³/yr)							0.003		
Treated waste water reused (10^9 m³/yr)									0.006

Source: Food and Agriculture Organization of the United Nations (FAO). 2004. FAOSTAT on-line statistical service. Rome: FAO. Electronic Database available at: <http://apps.fao.org>.

MANRE is looking to the implementation of the Water Framework Directive to provide clearer controls on this use of contaminated water by farmers. With regard to the water use problems, agriculture is the main user of water in Cyprus accounting for 70% of total abstraction. Thus changes in agricultural production have a larger impact on the country's scarce water resources than similar relative changes resulting from domestic, industrial or tourist sectors. Various measures are taken to maximize sources such as recycling water from wastewater treatment works. MANRE describes the situation as "under control". However, water levels in aquifers continue to decline. This decline has been seen for at least the last 25 years, although the drought conditions of the 1990s have made it worse. Constraints on water availability affect production significantly. The drought in 2000, for example, caused a decrease in production of 10% while the wetter 2001 has allowed for an increase in production of 10.1%. Much of this variability concerns crop production, particularly potatoes, with animal production remaining stable.

Soil erosion

The abandonment of land and the intensification of production in other areas are major environmental problems of the rural areas. In the mountainous and semi-mountainous regions of the country the danger of soil erosion is increased due to the higher rainfall, the steepness of the ground, the shallow depth of the soil, the relatively low content of organic matter, the limited vegetation, forest fires, the abandonment of crops and the limited implementation of soil protection measures (dry walls, sills etc.).

Today soil losses from erosion are not a major problem. Monitoring is undertaken on soil loss due to agricultural activity. Even though, there are significant pressures on erosion in Cyprus due to increasing intensification, use of more machinery and enlargement of field systems. The total area of land affected by erosion in 1996-2000 is estimated to be 112,500 ha.

Biodiversity

Considerable monitoring of the biodiversity resource in Cyprus is being undertaken mostly by the Environment Service, the Forestry Department and the Fisheries Department.

To date five areas have been declared as Areas of Nature Protection and 13 areas have been declared as National Forest Parks mainly for leisure but also for the conservation of the biodiversity, the environmental education and scientific research. However, very little attention has been paid to the impacts of agriculture on biodiversity.

Most effort has been given to the implementation of the birds and habitats directives and a provision list of Special Areas of Conservation (SAC) has been forwarded to the European Commission. The boundaries of the sites contain most of the country's habitat types and most of its endemic species. The work on Natura 2000 has focus on site identification, with little assessment of pressures.

The development of the Network Natura 2000 within the framework of the directive 92/43/EC is one of the most promising measures for the conservation of the biodiversity. The National Directory consists of 43 areas with large extents of forests.

1.3 Brief presentation of the CMO system in the country (Wine)

1.3.1 Description of the historic of implementation of CMO

The Wine Products Council (WPC) is an independent semi-governmental organization with executive powers and accountable to Government which finances all its activities. The Ministry of Agriculture, Natural Resources and Environment (MANRE) supervises the WPC (Law 61(I) of 2004). It has a 9-member Board of Directors appointed by the Ministerial Council.

It acts as the competent authority for the implementation of the vineyard and wine policy of the country in full harmonization to that of EU. Its main role is focused mainly to the adopting and full implementation of the CMO in the Cypriot viticulture and viniculture and to the regulations in regard to the designation, characterization and presentation of alcoholic drinks. At the same time it

is the designated subcontractor of the Cyprus Agricultural Payments Organization (CAPO) with the responsibility of effecting payments for the measures supporting the vineyards and wines sector.

The following actions have been initiated by the WPC:

- The development of a Vineyard Register
- The preparation of a National Reserve of Planting Rights (in effect since 27/8/04)
- The enactment of decrees governing declaration of areas for the production of wines of controlled appellation of origin and table wines with a geographical indication as well as criteria for their production. (in effect since 27/8/04).
- Preparation of manuals for the implementation of the Measures in relation to “Market Mechanisms” and “Production Potential” of the CMO for wines.
- Representation of the Republic of Cyprus at the Management Committee for Wines of the European Committee.
- The planning of a modern information network for stakeholders in the vineyard and wine sector.

1.3.2 Organisation of the implementation at national and regional level

Strategic Plan for support of vineyard farmers

The plan was endorsed by the Council of Ministers in 2004 and aims to advance the implementation of an integrated plan for the management of the Cyprus vineyards. It has five axes:

1. Income support of the producer with direct subsidies
2. Improvement and modernization of the sector through the Rural Development Plan
3. Restructuring of the sector through restructuring, grubbing up of vineyards and buying out of replanting rights
4. Promotion of establishment of producers organizations and inter-sectoral organizations, and
5. Initiatives aiming the exploitation of commercial opportunities and promotion of sales of wine products

Within the RDP the following MEASURES are relevant to the wine and grape producers:

A. Measure 1.1.: Provision of grants for investments in the improvement of competitiveness and management of wastes of agricultural enterprises

Status 1.1.1.: General investments for modernization of agri-livestock enterprises

Selected actions (concerning table and/or wine-producing vineyards):

Purchase of agricultural machinery, equipment and improved irrigation systems, planting of fallow land, propping of stumps, construction of storage sheds, construction of ponds etc.

Amount of grant: 50% of the total selected expense in the normal areas and 60% in the bereaved ones. For new farmers of age up to 40 years at the time of completion of the investment, the proportion of grant increases to 55% in the normal areas and 65% in the bereaved ones. Specifically for propping a grant of € 3250/hectare is envisaged.

Status 1.1.2.: Restructuring and adjustment of exploitable table-vineyards

Selected actions: Grubbing, deep cultivation, purchase of stumps and replanting or grafting of an existing vineyard. It is clarified that replanting with table vineyards is not obligatory or once the farmer selects other cultivations that have a higher market potential.

Amount of grant: 50% of the total selected expense in the normal areas and 60% in the bereaved ones. For new farmers of age up to 40 years at the time of completion of the investment, the proportion of grant increases to 55% in the normal areas and 65% in the bereaved ones.

It is noted that cover of the loss of income is envisaged with the result that the amount of grant is raised substantially (i.e., for grubbing, deep cultivation and replanting this could reach up to € 13680/hectare)

Status 1.1.5.: Encouragement and support of small scale processing activities for agricultural products by owners of agricultural enterprises (i.e., production of “soutjioukos”, jams etc.)

Selected actions: manor, sheds, equipment, similar expenses.

Amount of grant: 50% of the total selected expense in the normal areas and 60% in the bereaved ones. For new farmers of age up to 40 years at the time of completion of the investment, the proportion of grant increases to 55% in the normal areas and 65% in the bereaved ones.

B. Measure 1.2.: Encouragement of the improvement and development of the processing and marketing of agricultural products

(Actions 1 and 2) Creation of modern local wineries or units of production of vinegar from wine, distillate from “raki” and wine of organic viniculture

Selected actions: Housing, machinery and equipment (including computers and software), certification expenses etc.

Amount of grant: 40% of the total cost as long as the investment is in the range of € 29070 – 148770, 35% for the cost of investment from € 148771 – 701100, 25% for the part of investment from € 701101 – 1504800 and 15% for the investment cost that surpasses € 1504800.

C. Measure 2.2.: Provision of grant for adopting friendly to the environment agricultural practices

Status 2.2.1.: Taking up of agri-environmental obligations for wine producing vineyards

Obligations assumed: Mechanical cultivation instead of weedicides for destroying for weeds.

Amount of grant: C£40 /decar (€ 684/hectare) for all areas and C£52/decar (€ 890/hectare) for areas at altitudes greater than 800m or altitudes greater than 500 m and steep slope of land.

Status 2.2.2.: Development of organic production of agricultural products of table and/or wine producing vineyards.

Selected actions: Observance of the Code of Good Agricultural Practice, submission of cultivation / agri-environmental plan and in general implementation of the provisions of the EU, National regulations on organic agriculture.

Amount of grant: C£52 /decar (€ 890/hectare).

D. Measure 2.3.: Agri-environmental activities

Status 2.3.1.: Preservation of the physical value of the agricultural environment and of the traditional landscape

Selected actions: Preservation of traditional trees (i.e. almonds, hazelnut trees or shrubs (wild rose plant), preservation/ restoration of existing dry-walls etc.

Amount of grant: For preservation up to C£20/decar/year (€340/hectare) (shrubs), or C£40/decar/year (€ 684/hectare) for tress. For preservation /restoration of dry-wall fences up to C£67/decar (€ 1146/hectare). For reconstruction in proportion greater of 80%, C£67/m² (€ 1146/hectare).

Status 2.3.2.: Saving and preservation of traditional varieties of wine producing vineyards

Selected actions: Planting and/or preservation varieties under extinction such as Maratheftiko, Lefkas, Promara, Spourtiko etc.

Amount of grant: For the planting and/or preservation of vineyards with the above varieties C£52/decar (€ 890/hectare)

E. Measure 2.4.: Saving of agricultural land (that until recently was being used for wine producing vineyards and/or other cultivations)

Selected actions: Installation, fences and servicing of cultivation with forest crops.

Amount of grant: Depending on the forest plant up to C£175 (€ 2993/hectare) or C£205/decar (€ 3505/hectare) for installation and fence, up to C£70 (€ 1197/hectare) or C£ 100/decar /year (€ 1710/hectare) for servicing for the first three years, C£35 (€ 600/hectare) or C£41/year/decar (€ 700/hectare) for the next 2 years, and C£42/decar/year (€ 718/hectare) for loss of income due to replacement of vineyard in the case of farmers, whilst for non-farmers the grant will be C£11/year/decar (€ 188/hectare).

F. Measure 2.6.: Provision of balancing payments in bereaved areas (for permanent residents of these areas)

Selected actions: Continuation of using the agricultural land (not only for vineyards)

Amount of grant: C£6/decar (€ 100/hectare) or C£9/decar (€ 150/hectare) or C£15/decar (€ 256/hectare) of agricultural land (not only vineyards) and in proportion with the community, the total extent of land etc.

G. Measure 2.7.: Encouragement of farmers' participation in quality improvement plans (i.e. production of quality wines P.S.R.)

Selected actions: Programmes/ plans for the quality improvement and promotion, advertising projection

Amount of grant: Up to C£1750/year/holding (€ 2992/year/holding) and 70% of the selected expense for the promotion of products (in the case of Team of Producers)

1.3.2.1 Planning - Programming

The Vineyard Register

The design of the Vineyard Register has been commissioned to the Aristotle University of Thessalonica and funds have been provided for the purchase of the necessary equipment for running the system.

The maintenance of a Register is an important condition for the drawing of community funds and for their correct management and for the implementation of the measures for the support of the Vineyards and Wine sector.

The Strategic Plan for the Support and Development of Viticulture

This has been approved by Government and it aims to promote an integrated program for the management of the Cyprus vineyards. It consists of five basic axes:

- 1) the income support of the producer with direct subsidies,
- 2) the improvement and modernization of the vineyard sector through measures of the Rural Development Plan (RDP),
- 3) the renewal of vineyards through restructuring, grubbing up and purchase of planting rights,
- 4) the promotion of organization of the vineyard farmers and wine producers through the establishment of organizations and inter-professional organizations, and
- 5) the assumption of initiatives with the purpose of exploiting commercial opportunities for the promotion of marketing Cypriot vineyard and wine products.

The WPC is responsible for the implementation of the third axis of the Plan which has been put into force since December 2004.

1.3.2.2 Implementation and control

According to the Tri-monthly Information Bulletin (January – March 2005) of the Wine Products Council, the major events that materialized are:

1. Implementation of the Strategic Plan for the Development and Support of Viticulture
2. Register of Viticulture
3. Registration of the first Cypriot Local Wines (as per the new institutional framework Regulation 704/2004)

Strategic Plan for the Development and Support of Viticulture

This plan (whose basic part has been developed by the WPC) was approved by Government on December 2004. It consists of five axes aiming to the promotion and implementation of an integrated plan for the management of the Cyprus vineyards. The third axis as already mentioned refers to the restructuring of viticulture through restructure, uprooting and buying out of planting rights which is financed solely by EU funds (C £14 million or €23.9 million)

The WPC has announced and implements the following measures:

A. Production Potential

Measure providing incentives for the restructuring of the zone “Koumandaria” for the year 2004/2005

This is financed by national funds. After local inspection, 51 applications of 24.3 hectares were approved. The uprooting of vineyards had to be completed by 30th of April 2005.

Premium Measure for permanent abandonment of vineyards 2004-2005 (WPC Measure 1a)

This was financed solely by EU funds and was announced on 22nd of December 2004 with the aim of providing a premium for the permanent abandonment of vineyards of varieties which add to the annual structural surplus production.

Applications were made within the period of 3/1/2005 and 21/1/2005. The total area approved after site investigations is 2016 hectares. The uprooting had to be completed by the 9th of May 2005.

The approved areas per variety are shown on Table 22:

Table 22: Approved areas per variety for irrevocable abandonment of vineyards

Serial Number	Variety	Extent (hectares)
1.	Mavro (:Black)	1633
2.	Palomino	101
3.	Plant X	1
4.	Sultanina	282
Total		2017

Measure for the restructuring and conversion of vineyards 2004 – 2005 (WPC Measure 1b)

This measure for the restructuring of vineyards and their variety conversion is financed solely by EU funds. This measure was announced on 13/12/2004 and it aims to the reformation and change of varieties so that the conditions are created for the production of quality wines in the locations of designated origin. Submission of applications was made in the period of 20/12/2004 to 21/01/2005. The total area approved after site investigations was 196 hectares. Uprooting had to be completed by 8/5/2005. The approved areas per locality are listed on

Table 23.

Table 23: Approved area for restructuring and conversion of vineyards

Serial Number	Locality	Extent (Hectares)
1.	Laona Akamas	39,3
2.	Limassol wine-villages	92,5
3.	Pitsilia	13,4
4.	Vouni Panagias - Ampelitis	49,4
Total		194,6

The submitted 3.500 applications were processed in the electronic database within three days from the last date of submission.

Remuneration for acquired planting rights

There were 400 applications with total planting rights of 251 hectares. This measure aims to the avoidance of creating an additional vineyard within the current transitional period. Financing is made using national funds (C £25,000 or € 42750)

Replanting of vineyards

The total number of permits for replanting of vineyards for 2005 were 335 for a total area of 194,6 hectares with new, mostly, wine producing varieties.

B. Market Mechanisms

Voluntary distillation of table wines and of wines suitable for the production of table wines

An expression of interest from three applicants has been revealed for the Measure 2d (Voluntary distillation of table wines and of wines suitable for the production of table wines) for the distillation of table wines of a total quantity of 4,039,700 litres.

National Grants

With the accession to EU the protectionism status of prescribing prices and subsidies has been abandoned. The market operates freely without government intervention whilst the support of the sector is based on EU legislation and within the accession treaty.

A total sum of C£ 2,083,278 (€ 3.6 million) has been paid for the realization of the commitment of the participating farmers to the following schemes:

- Restructuring and permanent grubbing up of vineyards that were announced in 2003,
- Provision of incentives for the restructuring of certain white wine producing varieties,
- the provision of incentives for the restructuring of the “Mavro” variety in zone C,
- the scheme of providing incentives for the restructuring of the “Koumandaria” area (zone D),
- the scheme for providing incentives for the grubbing up and buying out of planting rights of the “Mavro” variety in the non traditional vineyard area (zone E)

The total sum paid to the entitled vineyard farmers for the purpose of the unified per hectare aid for 2003 was C £2,209,518 (€ 3.8 million) and covered an area of 13314 hectares of wine producing vineyards. Also a total sum of C£36,847 (€ 63000) were paid as a per hectare aid for all vineyards that were planted in 2003 and remained in a forced fallow condition.

Export subsidies of C £1,105,114 (€ 1.89 million) were paid for the vineyard and wine products for the period of 1.9.2003 - 30.4.2004 within the framework of supporting the wine industry.

Finally, within the framework of implementation of the 3rd axis of the Strategic Plan of support and development of vineyards the following measures:

- Continuation of the Measure providing incentives for the restructuring of the Koumandaria area (zone D) for the year 2004/2005
- Buying out of vineyard planting rights which participated in the scheme of restructuring problematic white varieties

- The restructuring of the “Mavro” variety in zone C which were meant to be replanted in the following planting season, and
- Buying out of private vineyard planting rights which did not participate in any support scheme but have been grabbed up with the intention of replanting within the framework of their natural renewal or their variety conversion in the following planting season.

EU Grants

Since August, 2004 the following measures of support to the Market Conditions have been put into effect:

- Mandatory distillation of wine sub-products
- Mandatory distillation of wines that originate from varieties of grapes of dual use
- Voluntary distillation of table wines and wines suitable for the production of table wines
- Use of concentrated and rectified concentrated musts with the intention of increasing alcoholic title of wine products
- Use of musts of grapes for the production of grape juice or other edible products that are produced on the basis of the said grape juice.

On the 13th and 22nd of December, 2004 the following measures were announced in support of Production Potential:

- Premium for the permanent abandonment of vineyards 2004 – 2005
- Restructuring and conversion of vineyards 2004 – 2005
- The development of the Vineyard Register of Cyprus
- The preparation of a decree for the National Reserve of Planting Rights (put in effect on the 27.08.2004)
- The preparation of decrees in relation to the declaration of zones for the production of wines of protected designation of origin and table wines with geographical indication as well as criteria for their production (in effect since 27.08.2004)
- Preparation of manuals for the implementation of the support measures for “Market Mechanisms” and for “Production Potential” of the CMO for wines.
- The representation of Cyprus to the Wine Management Committee of the European committee
- Design of a modern information network for the vineyard and wine stakeholders

1.3.2.3 Monitoring

The new role of the WPC is focused on the adopting and full implementation of the CMO in the grape and wine industry. Within this new role the WPC signed an agreement with CAPO for undertaking approval of payments for the support measures of the grape-wine sector. For meeting this objective the WPC made an internal reorganization and created and staffed a new Division for Approval of Payments.

The Vineyard Register has been developed being a prerequisite for the proper management and implementation of the measures of support for the sector. It is also an important tool for administrative decisions.

A National Planting Rights Reserve has also been developed and is in operation.

A number of Regulations regarding issues for the sector and their regulation and implementation have been prepared and submitted to MANRE for final approval.

Inspectors and staff of the WPC carry out on the spot inspections of new vineyards, grubbed up vineyards as well as of vineyards proposed for restructuring and for buying out planting rights. Site inspections are also carried out on objections of producers in regard to the extent and variety of their vineyards. Also for the control of alcohol content and for the proper management of wine sub-products the WPC inspects such locations and collects samples for laboratory analysis.

In the first three months of 2005, the WPC organized campaigns for updating the public and stakeholders involved in the improvement of the wine-grape sector. It has also published briefing documents and participated in updating meetings, discussions and conferences. Furthermore, publications in the daily newspaper media, periodicals and with interviews in radio and television talk shows the public had a large and detailed briefing for the various actions in the wine-grape sector and the changes, opportunities and potential that is provided within the European framework operation of the sector.

1.3.3 Organisation of the producers

Table 24 presents information on the new Producers Organisations together with their number of producer members.

Table 24: Producers Organizations

Name	Chairman	Address	Membership
Association of Regional Wineries "VAKHOS"	Nicos Nicolaides	F. Roosevelt Ave. 170 2 nd floor P.O.Box 55699, 3781 Limassol	51 wineries with permit to produce wine products
Association of Wine Producers	Kyriakos Papadopoulos	Acropoleos 18, 3013 Limassol	4 major wineries
Association of wine and spirits	Yiannis Vryonides	Vinco Ltd, Alkidamou 6, Industrial area of Agiou Athanasiou 4101 Limassol P.O.Box 54622, 3726 Limassol	20 producers with permit for spirits

1.4 The level of implementation of the CMO measures

The created conditions with the accession of Cyprus to the EU call for a restructuring of the wine and grape sector of Cyprus and its adjustment to that of a new era but also to the development of the value and competitiveness of Cyprus wines in the international market. The European framework provides potentials of development and of economic support from European funds but in parallel it creates obligations, conditions and prerequisites for development and for correct management of the sector

The level of implementation has been provided already on the number of plans and measures that have been made and put into effect. It is too early to evaluate the level of implementation since all these plans and measures are still in their infancy. Nonetheless a lot have been done and are in the line of implementation.

**Table 25: Measure WPC1a: Permanent Abandonment of Vine Growing 2004 - 2005 Total
Number of Received Applications: 3,520 - Area Covered: 25,331 decars**

Variety	Variety Area (hectares)	Number of Approved Applications	Area (hectares)	Number of Grub-up Applications	Area (hectares)	Percentage
Palomino	51,8	146	94,3	132	83,1	88.10%
Sultanina	300,0	393	247,8	374	235,9	95.20%
Plant Ex	18,2	3	1,1	3	1,1	100%
Mavro	1500,0	2,351	1676,3	2285	1627,5	97%
TOTAL	1870,0	2,893	2019,5	2,794	1947,6	96.40%

Source: WPC (personal communication)

As per the accession treaty to the EU (MD413/6/03 REV 6, AA 12/03-Annex II/en 130) and the implementation of Annex III, item 6 and 7 of EC 1493/99, Cyprus is included in the production

zone C III (b) for areas with altitude lower than 600 meters. Following this the Cyprus vineyards have been delineated into areas C III (a) and C III (b) and areas of wine production under controlled appellation.

Table 25 lists the applications received and approved for permanent abandonment per variety (2004-2005) and Table 26 lists the number of applications received and approved for restructuring and conversion of vineyards 2004-2005.

Table 26: Measure WPC 1b: Restructuring and Conversion of Vineyards 2004 - 2005 Total Number of Received Applications: 635 - Area Covered: 5,289 decars

Region	Regional Area (hectares)	Number of Approved Applications	Area (hectares)	Number of Grub-up Applications	Area (hectares)	Percentage
Vouni Panagias	50,6	49	50,8	48	50,2	98.60%
Laona Akama	38,8	44	39,0	41	37,6	96.40%
Pitsilia	13,5	26	13,4	26	13,1	97.50%
Krasochoria	93,2	91	92,7	88	90,6	97.60%
TOTAL	196,1	210	195,9	203	191,5	97.60%

Source: WPC (personal communication)

1.4.1 The Code of Good Agricultural Practice (CGAP)

The Code of Good Agricultural Practice (CGAP) is a simple practical guide to those that are involved with agriculture and livestock activities guiding them for the protection of the environment refraining or minimizing pollution.

The causes of pollution of the environment from agricultural activities are described in a simple manner and ways and methods are suggested for its protection and conservation for sustainable production. This means that the farmer should not aim only for production but should also place in his activities the need for the protection of the environment.

The CGAP was published as a decree on the 6/9/2002 under the Law for the Control of Pollution of Waters and Soils (2002).

The Code comprises four parts:

1. Use of fertilizers
2. Use of livestock wastes
3. Use of Recycled Water from Urban Wastes for irrigation
4. Use of Sludge of Urban Wastes for agricultural purposes

1. Use of fertilizers

The use of environmentally friendly practices is provided for chemical and organic fertilizers, manure, sludge and organic substances.

In particular, it strives to minimize pollution of water resources from the concentration of various salts (nitrates). In particular the following are outlined:

- Kind, quantity, time period for use of various fertilizers (Inorganic chemical fertilizers, organic and from wastes)
- Methods of use of fertilizers (Use of fertilizers when needed not during intense rains or at steep slopes, use in small quantities when weather allows, use of combined irrigation-fertilization process)

- Storage and transfer of inorganic fertilizers (Storage at least 50 m from water bodies, safe containers, security in their transfer, liquid fertilizers in antioxidant containers)

2. Use of livestock wastes

Their use is considered friendly to the environment provided:

- Their use and method is planned for best results and reduction of dangers for pollution.
- The soils and hydrologic conditions in the area are considered and they are adequately stored and their use is well planned.
- Areas where their use is prohibited should be defined
- Their use where there are sources of water (springs, wells) should be at distances further than 100 m
- The total nitrogen quantity within the waste should not exceed the needs of the cultivation, and
- Their use in classes of soils defined as high risk can only be done at prescribed time periods.
- Solid wastes may be used in undigested condition on cereals right after harvest or 3 months after seeding, for trees these should be used in winter in digested condition and for vegetables undigested wastes should be placed 3 months before planting.
- Liquid wastes use should be made so that there is no loss of nutritious elements, the application method should be easy and safe, on steep slopes there runoff should be controlled, avoid their use during the rainy period or when the soil moisture is high, and the holdings are at least 50 m from surface water bodies.
- Reduction of odour: This should be reduced to the maximum by Solid –liquid separation
- Maximum treatment of liquid wastes and cultivation of the soil after their placement on it
- Waste removal to a distance from the farm sheds
- Dosage for liquid wastes for rain fed cultivations use should be made for the nutritious needs and not for moisture built up, for cereals 25-35 cub.m./decar/year are recommended.
- Dosage for solid wastes for rain fed cereals half a tonne of dry manure is recommended while for irrigated crops the quantity should be less than one tonne per decar/year (generally the quantity placed depends on the moisture content of the manure i.e. for 80% moisture the dose for irrigated crops would be 4 tonnes/decar/year)

3. Use of Recycled Water from Urban Wastes for irrigation

Use treated water from Plants that operate under license, controlled and supervised by the competent authority and all pipe networks are labelled in red and use irrigation techniques that are allowed according to the crop. Restrains on the use of recycled water are as follows:

- Lawns should be irrigated at night, use on fodder crops should terminate at least 1 week before harvest and grazing by animals producing milk is not allowed.
- Collection of fruit and product from the soil (except dry nuts) is not allowed.
- When used on vineyards, irrigation should stop 1 week before harvest if the grapes are wetted, and the same applies for fruit trees.
- Use is not allowed for leafy vegetables, tubers and nodules that are eaten raw.

4. Use of Sludge of Urban Wastes for agricultural purposes

Use sludge can be made only from Plants that operate under license, controlled and supervised by the competent authority and its storage should not pose a danger to public health and to the environment. The quantity applied depends on the type of soil, the crop, the time and the quality of

the sludge. On rain fed cereals 500 are suggested and on irrigated fodder crops up to 700 kg/decar/year of dry sludge. The use of sludge for agricultural purposes should be avoided in the following cases:

- In areas where there is a risk of deterioration of the quality of water resources, in grazing pastures, on fodder crops intended to be harvested in three weeks, on fields already cultivated with fruits and vegetables except fruit trees, on fields intended for the production of fruits and vegetables touching the soil and may be eaten raw except if the sludge is placed 12 months ahead of harvest and on lawns unless this has been placed 12 months before their use.

For the protection of public health the following controls (soil analyses) should be made:

- Sludge analysis every 6 months unless results do not vary in which case every 12 months, analyses of soil samples depending on its initial content in heavy metals, the frequency and quantity and content of heavy metals of the sludge. The responsibility of analyses lies with the producers of the sludge (the Treatment Plants).

The observance and application of the various conditions and obligations that are included in the CGAP aim to protect the soil and waters from pollution and maintain them in a sustainable condition according to our obligations to the EU Acquis.

An eight page brochure on the CGAP (in Greek) has been issued by the Environment Service of the MANRE which has received a wide circulation amongst farmers explaining in simple but comprehensive manner the Code.

The code on GFP covers all types of agricultural production. These cover fertilizer application, liquid and solid wastes management of animal production operations, reuse of treated urban waste water for irrigation, use of sludge in agriculture from urban wastewater, a code for correct agricultural practice for agricultural pharmaceuticals (controls on their use, supply and storage, correct use, choice of crop, quantity and application form, frequency and safe period of application, protection, protection of the environment, production, storage, sale and distribution), good agricultural and environmental conditions in plough cultivations (soil erosion, organic soils substances, soil structure, conservation of the environment, fallowing, protection and development of rangelands).

2. ANSWER TO EVALUATION QUESTIONS

2.1 Preamble

Relating to the NMS, the TORs of the evaluation state that: “..... the question on wine [Theme 2, question 3] concerns at least two enlargement countries”.

In fact two specific questions are dedicated to NMS:

The second one (Q 3V2) FOR CYPRUS relating to the wine CMO, states “What are the environmental impacts of grubbing-up grants and payments of compensation for cost of uprooting and income loss?”

In the inception report we have stated on the location of the CMO studies in NMS. It has been decided to locate the studies relating to wine in Hungary and Cyprus.

2.2 Question on vineyards

For the following questionnaire, interviews were requested and arranged with key persons that have and continue to be involved in the implementation of the CMO and agri-environmental measures. Each interview lasted between 60 and 90 minutes. Due to the limited time accorded for each interview, the answers to the questions were based on the existing knowledge of the interviewee without reference to any written material or documents. Some of the interviewees refrained from answering certain questions for which they were not certain or had no personal knowledge.

The persons interviewed together with their capacity and involvements with the subject are listed in Appendix I. The interviews were carried out in Greek lasting 60 to 90 minutes.

In the text that follows the question posed together with the constituent sub-questions are listed followed by a summarization of the answers that were provided.

Question 3 (V2): What are the environmental impacts of grubbing-up grants and payments of compensation for cost of uprooting and income loss? [This question should be answered also in the longer term perspective of enlargement with wine producing countries in central and southern Europe]?

According to recent information in the field of wine, it appears that some MNS seem to have widely implemented some measures of the wine CMO, the RDR and eventually some pre adhesion programmes. It is asked to the evaluators to see particularly if the grubbing up of vineyards has been implemented, at which scale and which environmental problems can be linked to this implementation.

In the text that follows a summary synthesis of the answers that were provided by the stakeholders is presented.

Background information

Some of the questions related to the rotation or conversion of crops could not be readily answered within the personal interview since sufficient information was unavailable for some of the data.

Statistics are available on the grubbing up of vineyards to convert them into agricultural land as well as into more productive new vineyards but not for the extent of conversion. Data are also available for the new varieties planted. Data for the extent of conversion are currently being collated and were not readily available at the time of the interviews.

Regarding intensification i.e.: increase in inputs like fertilizers and pesticides, increase in density of plantation, irrigation, etc., there are no statistics although the trends are known. These refer to decrease in fertilizer and pesticide use and decrease in the density of plantation. Statistics on grubbing are available but what happens to the field and what crops are planted afterwards is not known. It has been suggested that the Department of Agriculture should indicate sustainable crops or reforestation with incentives. The farmers feel that intensification is not practiced to a high degree.

The tendencies for each of these operations over the past ten years are not readily available.

Some grubbing up of vineyards has been carried out under the scheme 1493/99 article 11 CMO. The level of subsidy varies depending with the productivity of the vineyard. This is managed by the Wine Products Council.

The response on whether there were environmental conditions linked to the grants is not definite. Some of the interviewees do not think so, since these are not demanded by the CMO and others indicate that environmental conditions are always attached to subsidies. Others think that environmental conditions are linked with other programs such as 'Land Conservation', reforestation, etc.

The CMO effects

In terms of vineyards management, the announcement of EU membership and then the actual membership itself change the behaviour of the producers to a large extent. Producers were disturbed because subsidy from the State on the basis of production was changing to on the basis of the extent of land. Others were disturbed because the security provided by Government was being lost and they had to convert to other varieties and improve quality.

There was scepticism for the liberalization of the market and import of wines, which caused a reserved and negative attitude. The long-term policy of subsidization of the producers by the State was the cause of the problem. The behaviour of others did not change substantially although there was some inactivity at the beginning although farmers subsequently caught up. From the authorities side there was initially some concern for the up taking of the plan by farmers. This concern was changed later to a concern about the available funds in view of the large up take.

The producers did not modify their practices before the CMO implementation in order to comply with its requirements from the beginning of its implementation since they were confident that the Government would have helped and provide aid. Only very few farmers changed their practices. Basically there were changes from Black grapes (local name: "Mavro") to varieties that were acceptable by the wine industry.

In regard to the risks associated with the implementation of the CMO relating to wine in Cyprus the opinion is that there is going to be a dramatic reduction of vineyards and reduction of production of wine. This would be due to the increase of costs as opposed to the profits expected. A reduction of prices can also be expected. The good quality varieties will benefit. The repercussions are expected to be positive due to the conversion to varieties which will be more competitive. Already the production of quality wine with appellation controllè has started.

This is not expected to lead to important changes in the agricultural practices, such as increase in fertilizer use since there would be no incentive for such an increase. On the possibility of increase of pesticide use again the answer is negative although some possibility exists because of the change to new varieties. For the same reasons no increase in the density of plantation should be expected although there is a great possibility for this to happen. No development of irrigation should be expected, since this would be uneconomical. It is possible though for certain varieties in the plains.

Other changes in practices may be expected such as harvesting at the correct time of maturity as well as other changes such as replacement of old vineyards by new varieties. Some vineyards are likely to disappear, and there will be changes in the density of some varieties.

It is certain that there will be changes in the share of the production sold in accordance with EU wine standards and that there will be changes in the size of vineyards.

Some other environmental effects may also be expected. For example the endemic “tulip” at Polemi area in Paphos, which grows in vineyards, will be affected if the vineyards are uprooted or abandoned. Similarly, certain fauna (lizards) will be affected as well as the local landscape.

It is the general opinion that this will lead to important changes in the organisation of the offer and the reduction of prices will force the grouping of producers and the elimination of some small producers.

The CMO grubbing up grants appear to cover the real cost of up-rooting. Loss of income is expected to be incurred by those that do not have a high income. According to the farmers grubbing is accepted in general by those that lost interest in the vineyards or that are of old age.

Authorities believe that these grants are very significant compared to the average wine producer's income whilst from the farmers' point of view these are not.

Grubbing up measures has been implemented both in specific regions/ areas and for certain varieties of vineyards. It is considered as too early to define the actual effect of the CMO yet. The effect of the measures within the framework of CMO will be the reduction of problems in the grape and wine production through the reduction of production of low quality grapes by reformation, grubbing and total abandonment of certain vineyards. These measures involve:

Replacement of certain new white problematic wine producing varieties with selected traditional varieties (Maratheftiko - Ofthalmo and Lefkada) as well as with new varieties (Capernet, Shiraz, Merlot, Chardonay). This resulted to the replanting of 400 hectares in 2003.

Reformation of the aging vineyards in the “Koumandaria” area, “Koumandaria” wine being the only wine with a controlled name of origin. The planting of these vineyards has been done in a way that prevents the use of mechanical cultivation means (small and irregular distances of planting, morphology of land). Some 130 hectares have been grabbed up in 2003 and will be replanted with Xinisteri and Mavro by 2005.

Reformation of the variety of the local Mavro to reduce the surplus production and replanting with new and traditional selected varieties. Some 265 hectares have been grubbed up and are to be replanted by 2006.

These measures of reformation of the vineyards aim to replace the aging vineyards in the mountainous and semi-mountainous areas which are gradually being abandoned.

Information as to what has happened in the last period just over a year, is not sufficient to define the effect of the CMO implementation. This will require some more time to collect the data and derive clear conclusions.

Producers' organizations

The setting up of Producer Organizations has just started. Farmers have not been convinced yet of the benefits of such action. It is considered though that in the end, producer organizations will be set up for the purpose of price negotiation. There is no apparent difficulty in starting these organizations and in fact there is some movement in this direction. No such organizations existed before the EU membership. There are no such institutions as yet and if they materialize then they will most likely take the form of company limited or a cooperative. If they materialize financing will be by commercial and cooperative Banks and the AEM Plan and be active in production and sales. Such project will probably be financed by EU and national funds. To date there is no interbranch organisation except Farmers Unions which are politically affiliated, and Producers Organizations geared according to the crop they produce (Citrus, Potatoes, and Cereals etc.).

Conclusion – Propositions

The main problems associated with the implementation of the wine CMO in Cyprus are summed as follows:

- Due to the liberalization there will be a reduction of prices for grapes (these will be adjusted to the market conditions).
- If the vineyard is not income producing this will be up-rooted, abandoned and environmental problems will develop.
- Other problems will develop for the wine-producing practices (new varieties, mechanical cultivation means, new schedules for fertilizing, and use of pesticides, etc.)
- There will be need for completion and maintenance of a register.
- Transportation of grapes to the wine factories will have to be modified.
- Past practices were completely different than what is being done in EU countries. These practices will have to be modified otherwise competitiveness will be very low. An indicative table depicting and allowing a quick comparison of the local agricultural practices and those under the CMO is as shown below:

Local Practice	Practice in EU countries
Limited control by local authorities	Control by Community regulations (CMO)
Limited control	Production potential
Limited (heavy subsidies)	Market mechanisms
Limited control (traditional varieties)	Varieties
Non-existing	Labelling, presentation of wines
Non-existing	Controlled names of origin
Traditional practices	Controlled wine producing practices
Bi-national arrangements	Transaction regulations with third countries
Limited control	Permit and right to plant
Very loose control	Declarations on production potential by farmers and by wine producers up to the content of a bottle of wine and its label.

The solutions to these problems, focusing on the environmental ones would be:

- Improvement of quality and gaining of European markets.
- Increase of incentives provided by the AEM Plan in forestation.
- Training and increase of sensitivity of producers.
- Use of agrochemicals friendly to the environment.
- Provision of economic and other incentives (i.e. network labels etc), with conditions for environmental commitments.
- Development of local wineries.
- Focusing on quality.
- Abandonment of obsolete practices (distance of transport of grapes, loading quantities etc.)
- Charging an environmental cost which will have to be levied for maintaining the green landscape (forest etc.)

APPENDICES

Annex 1: List of people met

Annex 2: Main bibliography identified in relation with the study including reports made prior to the EU membership

Annex 3: Complementary statistics on the production studied

Annex 1: List of people met

The persons interviewed together with their capacity and involvements with the subject are listed in the Table 27 below:

Table 27: The Personalities / stakeholders interviewed in Cyprus

Name	Title	Department
Mr. Antonis ANTONIOU	Chief Environmental Officer	Environmental Services, Ministry Of Agriculture, Natural Resources and Environment
Mr. Christodoulos FOTIOU	Chief Agricultural Officer	Department of Agriculture, Ministry Of Agriculture, Natural Resources and Environment
Mrs Vania THEOFILOU	Senior Agricultural Officer	AEM Management Unit, Dept. of Agriculture, MANR&E, Head of Agro-economics Division
Mr. Koulis PAPACHRISTOFOROU	President/ Farmer	“PANAGROTIKOS” – Farmers Union
Mr. Andreas FRAGGOS	Senior Agricultural Officer	Wine and Vineyards Section, Dept. of Agriculture, MANRE

In addition to the above, the Director of the Wine Products Council Dr. Yiannakis Georgiades has been consulted.

Annex 2: Main bibliography identified in relation with the study including reports made prior to the EU membership

Hydrogeological Services International Limited (2002) “Study of the Protection of Waters Caused by Nitrates from Agricultural Sources according to the Directive 91/676/EEC” Contract No. GSD/11/

Andrew Farmer, IEEP (2002) “Background study on the link between agriculture and environment in Accession countries, National Report for Cyprus”, Institute European Environmental Policy

E.C. DG for Agriculture (2002) “Agricultural Situation in the Candidate Countries”, Country Report on Cyprus

Department of Agriculture (2004) «ΣΧΕΔΙΟ ΑΓΡΟΤΙΚΗΣ ΑΝΑΠΤΥΞΕΩΣ 2004-2006» In Greek “Rural Development Plan 2004 – 2006”

Eleftheriou, P. (2001) Boron in groundwater of the Island of Cyprus. Journal of Environmental Hydrology, 9: 30-36.

Costas Petrides (CAPO Commissioner) (2003): “The Cyprus Agricultural Payments Organization – Aim and Objectives”

Costas Petrides (CAPO Commissioner) “Press Conference on the 22/2/2005 on the work of CAPO since its foundation”

Costas Petrides (CAPO Commissioner) “Press Conference” on the 22/2/2005 to the « EYROKERDOS » magazine.

FAO / WDD (2002) « Reassessment of hydrology and water demand of the island of Cyprus » WDD. Nicosia Cyprus

Ministry of Agriculture, Natural Resources and Environment (2005) “Annual report of the Ministry”

Stylianou Chrystalla (2003) “Code of Good Agricultural Practice” in Greek (ΚΩΔΙΚΑΣ ΟΡΘΗΣ ΓΕΩΡΓΙΚΗΣ ΠΡΑΚΤΙΚΗΣ) Environmental Service - PIO 266/2003-2.00

Agricultural Statistics 2002, Statistical Service, PIO, Cyprus

M. Markou and A.Mavrogenis (2002) “Norm Input – Output data for the Main Crop and Livestock Enterprises of Cyprus, Agricultural Institute, MAMRE, Cyprus

Markou M and Papayiannis Chr. (1998) “The economics of wine grape production in Cyprus”, P.I.O. 119/1998-400, Press and Information Office, Nicosia

Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004

FAO Trade Yearbook Vol.56-2002

Fraggos Andreas (2004): Information Leaflet “Measures of the Rural Development Plan 2004-2006 that concern vineyard farmers”, P.I.O. 92/2004-15.000, in Greek

Georgiades Yiannakis (2004) “The Wine Producers Council and its role”, AGROTIS magazine (in Greek)

The following Internet Web sites have also been Used :

http://europa.eu.int/comm/agriculture/envir/index_en.htm#measures
for Agri-environmental measures

(http://www.capo.gov.cy/Capo/CAPO.nsf/DMLspeeches_gr/DMLspeeches_gr?OpenDocument
for details on CAPO

<http://www.moa.gov.cy/moa/Agriculture.nsf/>
for information on the Ministry of Agriculture, Natural Resources and Environment, the
Department of Agriculture

<http://www.fao.org/ag/agl/aglw/aquastat/countries/cyprus/index.stm>
For statistics on agriculture from FAO

Annex 3: Complementary statistics on the production studied

Subsidies paid by Government in Cyprus pounds are listed in Table 28 below.

Table 28: Subsidies paid by Government (in million €)

Year	To wine producers	Vineyard farmers	Total
1991	0,2	9,5	9,7
1992	0,3	11,7	12,1
1993	0,6	10,9	11,5
1994	2,1	8,0	10,1
1995	2,6	13,1	15,7
1996	4,9	10,5	15,4
1997	3,0	10,9	13,9
1998	2,8	15,2	18,0
1999	3,3	11,4	14,6
2000	3,1	11,9	15,0
2001	4,7	20,2	24,9
2002	10,7	9,6	20,2
2003	2,7	14,0	16,7
2004	1,9	7,6	9,5

Source: Wine Products Council: Annual Reports of 2001, 2002, 2003 and 2004 (converted to € at 1 C£= 1.71€)