

**MINISTRY OF AGRICULTURE, NATURAL RESOURCES AND ENVIRONMENT  
Water Development Department**

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)  
Land and Water Development Division**

**TCP/CYP/8921**

**REASSESSMENT OF THE ISLAND'S WATER RESOURCES AND DEMAND**

**Objective 1 – Output 1.5.1**

# **THE ASSESSMENT OF WATER DEMAND OF CYPRUS**

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## DEFINITION OF WATER USE AND DEMAND

**Water Use** is the amount of water actually used in any sector (Agriculture, Domestic, Industry, etc.) expressed either as total amount or per unit area, per capita consumption etc. This amount is not the ideal requirement or demand and may vary year by year due to water availability, mainly caused by water shortage. It is usually lower than the demand.

**Water Demand** is the normal water requirement for any sector (Agriculture, Domestic, Industry, etc.) expressed either as total amount or per unit area, per capita consumption etc. It is the necessary water demand to cover the needs of a sector without shortage.

## ABBREVIATIONS

WDD	Water Development Department
CTO	Cyprus Tourism Organization

## UNITS

1 Decar	= 1000 m <sup>2</sup>	1 m <sup>2</sup>	= 0.001 Decars
1 Decar	= 0.1 Hectares	1 Hectare	= 10 Decars
1 MCM	= 1 Million m <sup>3</sup>		
1 L/d	= 1 Litre / Day		

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## 1 INTRODUCTION

The purpose of the present study is to **assess the water use and demand** in the various sectors:

- **Agriculture**
- **Domestic**
- **Tourism**
- **Industry**
- **Environment**

Water being a vital commodity was in severe shortage in the recent years 1997 - 2000. The consecutive drought during the above period has affected the agricultural and domestic water use. The impact of shortage on the domestic use has led the Government in seeking alternative and more reliable sources of supply (Desalination).

Traditionally Cyprus was covering the irrigation and domestic needs from surface and ground water resources. The over-pumping of the ground water that resulted in the reduction of quantity and deterioration of quality, together with the reduction of the surface water as a result of continuous drought, brought up the necessity of re-assessing the water resources and demand and draw guidelines for the decision and policy making people.

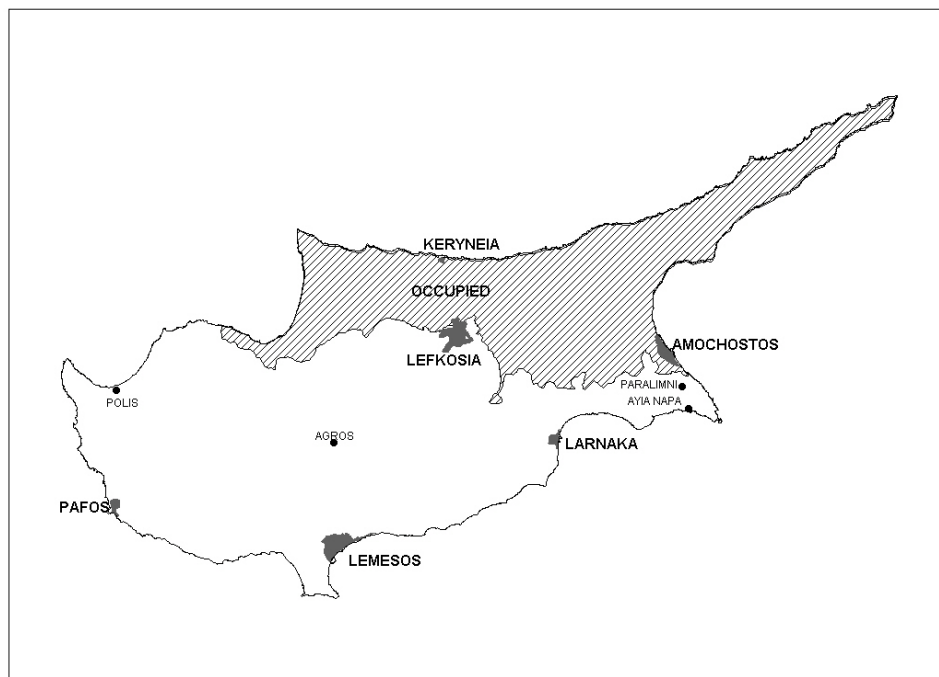


Figure: 1 Cyprus and its main Towns

It should be understood that in the following chapters references to "...Cyprus" pertain only to the part of the Island under government control. The part of the Island under Turkish occupation (see Figure: 1) is excluded because of its obvious inaccessibility.

The National Consultant Mr. Loucas Savvides has worked on this project TCP/CYP/8921 from 11th December 2000 until 10th May 2001. Another period of over one month from 10<sup>th</sup> of September until 19<sup>th</sup> of October 2001 was spent for finalizing the report. The Terms of Reference are described in Annex 1-1. Mr. Savvides has been assisted by Mr. Gerald Dörflinger (Assistant to the National Project Coordinator) and Mr. Chr. Photiou and Mr. Kyriakos Alexandrou of the Water Use Section of the Department of Agriculture.

Although the study period was short compared to the data needed to be collected and analyzed, it is believed that, for the first time such study was carried out in depth.

Considerable effort was put by the Department of Agriculture in the collection of information and data on irrigated crops all over Cyprus. The Water Use Section has played a key role in this activity for collecting and preparing a valuable data bank information system on crops and growers. The time has proven to be short for such study, however the collected information have quite high degree of accuracy, although still few data on olives and deciduous in Pitsilia area have to be processed. Each Major Government Irrigation Scheme has been studied separately, realizing the importance of having reliable data on areas, on the water used during the recent years and the actual water demand. Data on the irrigated areas of these projects, kept by the Water Development Dept. and the Irrigation Committees, were very useful for completing the present study.

Among the problems observed was the difficulty in getting data and information from some municipalities as they are acting independently without the control of anyone. The Paralimni Municipality declined to release information on the present water consumption of the inhabitants and some tourist accommodations as required for our survey, set up in co-operation with the Cyprus Tourism Organization. Similarly, the validity of data obtained from certain municipalities is to be questioned.

Water Demand on Animal Husbandry was based on information and data supplied by the Animal Husbandry Section of the Dept. of Agriculture.

In carrying out the study, many Government offices have been conducted such as:

- Water Development Department (Main office in Lefkosia and the regional offices in Lemesos, Larnaka, Ammochostos, Pafos, Polis Chrysochou)
- Department of Agriculture, Lefkosia, Lemesos, Larnaka, Ammochostos, Pafos, Agros (Pitsilia)
- Water Use Section of the Department of Agriculture, Lefkosia
- Animal Husbandry Section of the Department of Agriculture, Lefkosia
- Integrated Administrative and Control System (IACS) Section of the Department of Agriculture, Lefkosia
- Cyprus Tourism Organization (CTO), Lefkosia
- Statistical Department of the Ministry of Finance
- Water Boards of all Towns and Suburbs
- Municipalities/Communal Boards/ Chairman's office of Villages
- Vines Board Office in Lemesos
- Tersefanou Treatment Plant
- Others

Annex 1-2 presents all the people met by the Consultant.

## 2 SUMMARY OF RESULTS

The **Total Annual Water Demand** all over Cyprus for the year 2000 is estimated to be 265.9 million m<sup>3</sup> (MCM) and is distributed as follows:

<b>AGRICULTURE</b>		<b>182.4 MCM</b>	<b>69%</b>
<b>DOMESTIC</b>		<b>67.5 MCM</b>	<b>25%</b>
	Inhabitants	53.4 MCM	79% of Domestic
	Tourism	14.1 MCM	21% of Domestic
	<b>Total domestic</b>	<b>67.5 MCM</b>	100%
<b>INDUSTRY</b>		<b>3.5 MCM</b>	<b>1%</b>
<b>ENVIRONMENT</b>		<b>12.5 MCM</b>	<b>5%</b>
<b>TOTAL WATER DEMAND</b>		<b>265.9 MCM</b>	<b>100%</b>

Table: 1 Annual Water Demand by Sector for the year 2000

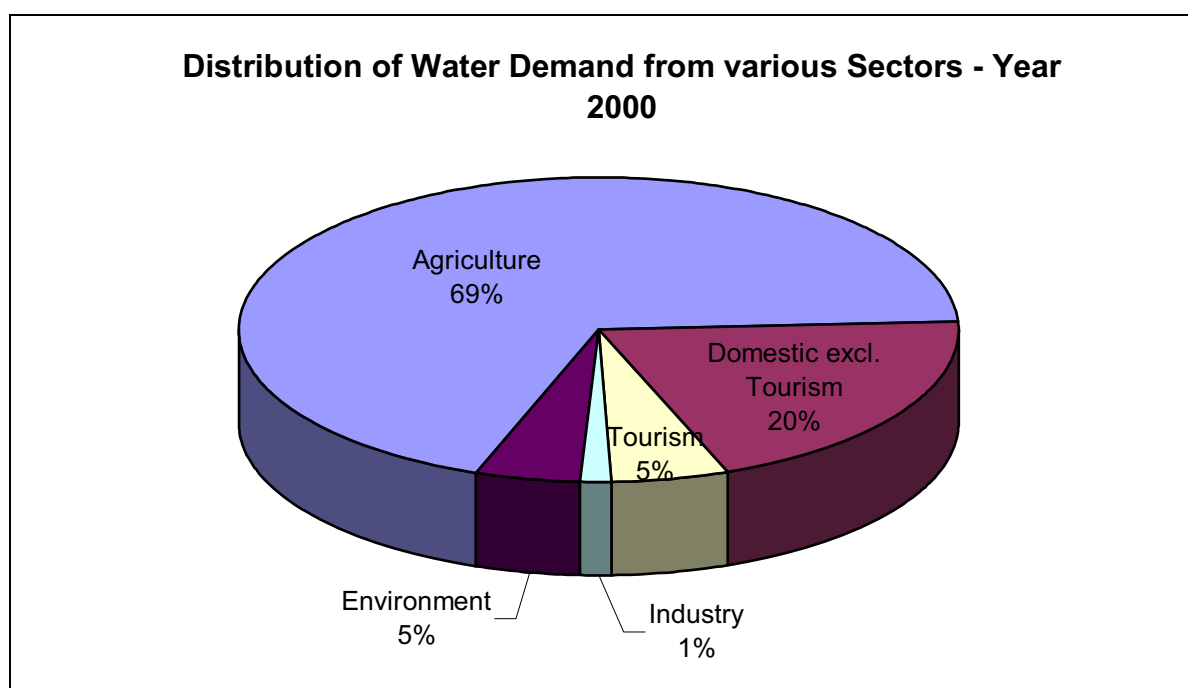


Figure: 2 Distribution of Total Water Demand amongst various Sectors for year 2000

**Note:** The Water Demand indicated above is at the source of supply and includes conveyance and distribution losses.

The projected annual water demand in million m<sup>3</sup> for the years 2005, 2010 and 2020 is as follows:

Sector of Demand / Year	2000	2005	2010	2020
<b>Agriculture</b>	182.4	182.4	182.4	182.4
<b>Domestic</b>				
Inhabitants	53.4	58.4	63.2	73.5
Tourism	14.1	18.0	22.9	30.8
<b>Industry</b>	3.5	5.0	6.0	7.0
<b>Environment</b>	12.5	14.0	16.0	20.0
<b>TOTAL (MCM/a)</b>	<b>265.9</b>	<b>277.8</b>	<b>290.5</b>	<b>313.7</b>

Table: 2 Projected Water Demand per Sector for the years 2000 - 2020

It is clear from the above that:

- Agriculture takes 69% of the total demand of all sectors.
- Domestic for inhabitants 20%      ''      ''
- Tourism 5%      ''      ''
- Industry 1%      ''      ''
- Environment 5%      ''      ''

WATER DEMAND BY SECTOR AND ANTICIPATED SOURCE OF SUPPLY FOR THE YEAR 2000										
	Surface water		Groundwater		Springs		Desalination		TOTAL	
	million m3	%	million m3	%	million m3	%	million m3	%	million m3	%
<b>Agriculture</b>	82	43	100.4	57	-	-	-	-	182.4	68.6
<b>Domestic</b>	14.5	21.6	16	23.1	3.5	5.2	33.5	50	67.5	25.4
<b>Industry</b>	-	-	3.5	100	-	-	-	-	3.5	1.3
<b>Environment</b>	5	42	7.5	58	-	-	-	-	12.5	4.7
<b>TOTAL</b>	<b>101.5</b>		<b>127.4</b>		<b>3.5</b>		<b>33.5</b>		<b>265.9</b>	<b>100</b>
<b>%</b>	<b>38.2</b>		<b>47.9</b>		<b>1.3</b>		<b>12.6</b>		<b>100.0</b>	

Table: 3 Water demand by sector and anticipated source of supply for the year 2000

Groundwater still remains the main source of water supply, particularly for the agricultural sector (Areas outside the Government Irrigation Schemes).

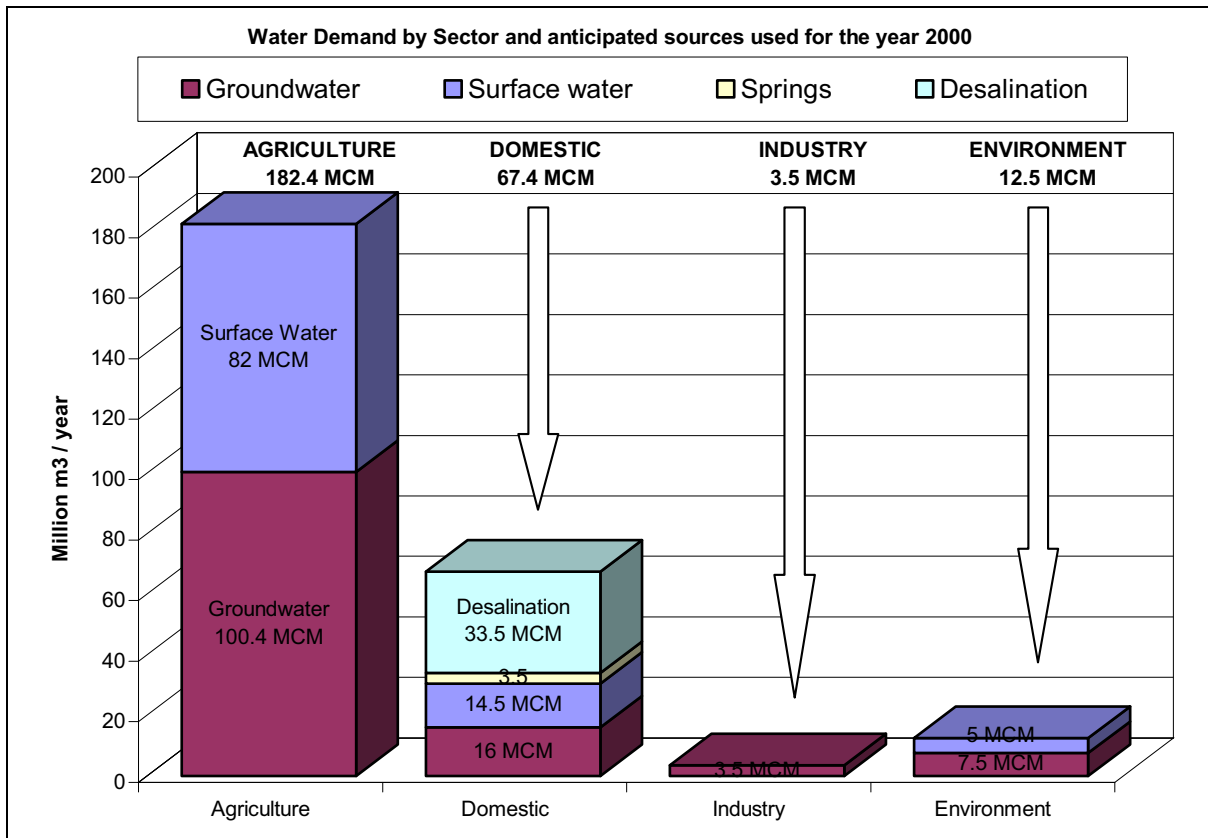


Table: 4 Water Demand by Sector and anticipated sources used for the year 2000

The 69% of the **Agricultural Water Demand** corresponds to 182.4 MCM and is distributed as follows:

- Irrigated Agriculture 174.4 MCM
  - Major Government Irrigation Schemes 100.1 MCM
  - Outside Government Irrigation Schemes 74.3 MCM
- Animal Husbandry 8 MCM

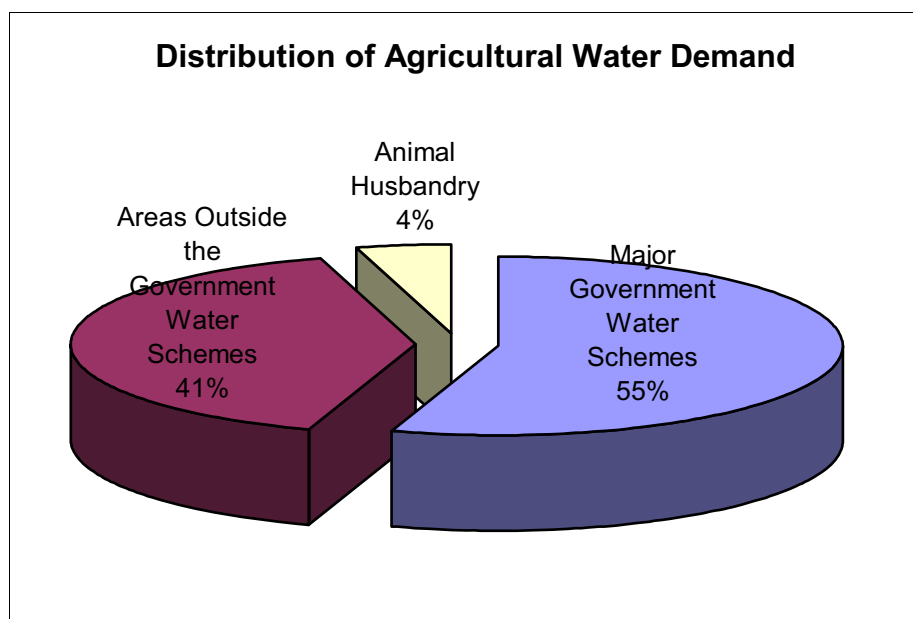


Figure: 3 Distribution of Agricultural Water Demand

The permanent crops consume 59% the total agricultural irrigation water demand, whereas vegetables consume 41%.

In years of low rainfall and limited water supply the vegetable area is reduced and priority of water demand satisfaction is given to the permanent crops.

Within the Irrigated Agriculture, the distribution of water demand is as follows:

<b>Permanent Crops</b>	Citrus	32%
	Deciduous	11%
	Olives	5%
	Table Grapes	3%
	Bananas	2%
	Remaining areas*	6%
	<b>Total</b>	<b>59%</b>
<b>Annual Crops</b>	Greenhouses	2%
	Open Field Vegetables	22.5%
	Potatoes**	9.5%
	Fodders	7%
		<b>Total</b>

Table: 5 Distribution of Water Demand for Permanent and Annual Crops by Crop

- \* Note: The remaining areas of about 5 (estimated) correspond to:
- Olives (Olive areas for Lefkosia District and about 15% of the olive areas in all other regions outside the Major Government Irrigation Schemes)
  - Flowers nurseries and Greenhouses in the Lefkosia District
  - Almonds for all regions (except Lemesos) excluding the Government Irrigation Schemes

- \*\* Note: 84% of potatoes are found in Kokkinokhoria. The remaining 16 % are in the other regions.

The 67.5 Million m<sup>3</sup> of **Domestic Water Demand** (inhabitants and tourism) is distributed as follows:

- Main cities and suburbs: 78%
- Villages and British Bases 22%

Desalination is the major source (50%) covering the Domestic Water Demand, followed by Groundwater (23%), Surface Water (22%) and Springs (5%).

50% of the Domestic Demand is in Lefkosia and Lemesos as shown in Table: 6 below.

	Water Demand in Million m <sup>3</sup> (MCM)			Total (%)
	Domestic (Inhabitants)	Tourism	Total	
<b>Lefkosia &amp; Suburbs</b>	16.6	0.7	17.3	26%
<b>Lemesos &amp; Suburbs</b>	12.8	3.6	16.4	24%
<b>Larnaka &amp; Suburbs</b>	5.8	2.0	7.8	12%
<b>Pafos &amp; Suburbs</b>	3.0	3.5	6.5	10%
<b>Ammochostos*</b>	1.2	3.5	4.7	7%
<b>All Villages</b>	11.3	0.8	12.1	18%
<b>British Bases</b>	1.8	-	1.8	3%
<b>Turkish Sector / Lefkosia**</b>	1.0	-	1.0	1%
<b>Total</b>	<b>53.4</b>	<b>14.1</b>	<b>67.5</b>	<b>100%</b>

Table: 6 Domestic and Tourism Water Demand for Cyprus (Government Controlled Areas only) for the year 2000

\*) Note: Ammochostos includes Paralimni, Derynia and Agia Napa

\*\*) Note: The Water Board of Lefkosia provides about 1 million m<sup>3</sup> of water annually to the Turkish sector of Lefkosia.

The above demand is based on:

- **215 Litres/capita/day for main towns**
- **180 Litres /capita/day for villages**
- **465 Litres /capita/day for tourist demand**

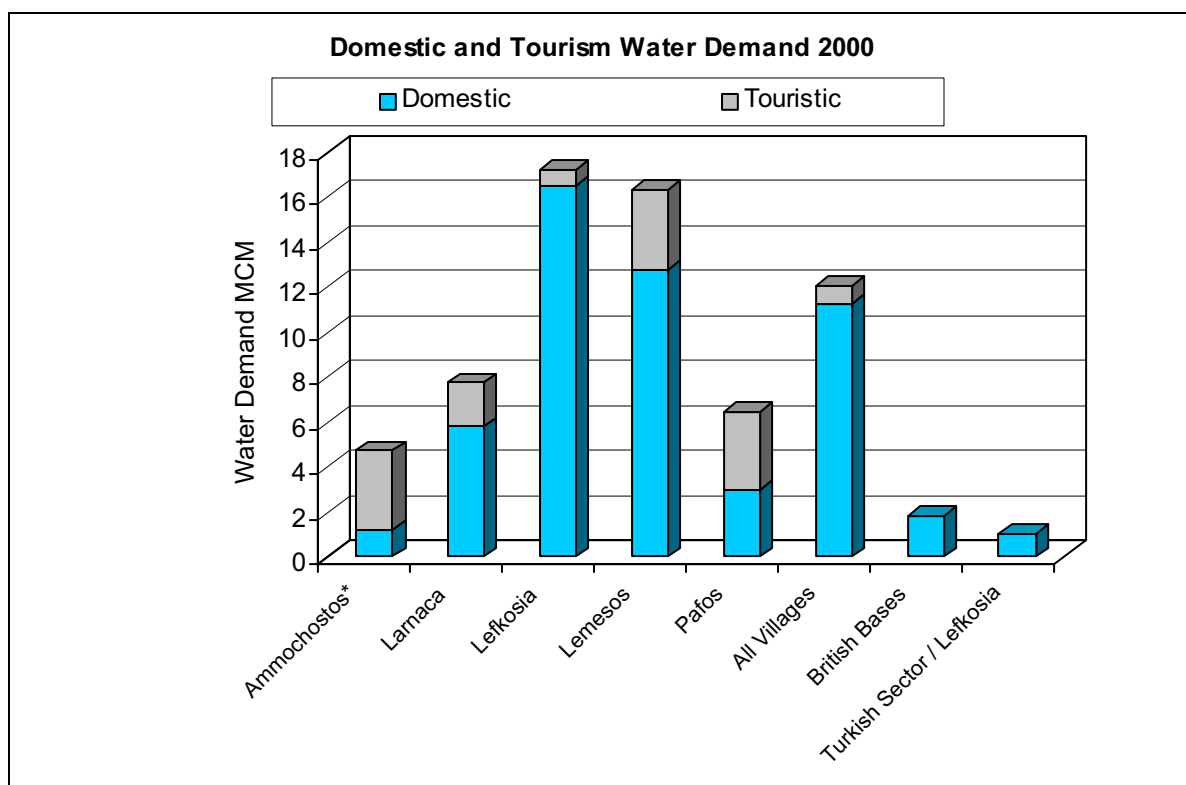


Figure: 4 Domestic and Tourism Water Demand per Main Towns and Suburbs (Government Controlled Areas) for the year 2000

The population was found to be distributed as follows:

- 74% of the population within the government controlled areas lives in the main cities and suburbs
- 26% of the population is in the villages

The average **Water Shortage** during the year 2000 can be summarized as follows:

- 29.3% Overall Shortage (All sectors, see Annex 2-1)
- 23.4% Domestic Sector (Table: 26)
- 38% Average for Agriculture
  - 45.6% Agriculture within Government Irrigation Schemes (Section: 5)
  - 20% Agriculture outside Government Irrigation Schemes (Assumed)

For some crops in the Government Irrigation Schemes the water shortage reached 70%. In addition vegetables have been reduced considerably during the dry years 1997- 2000 and priority of supply was given to permanent crops.



### 3 METHODOLOGY FOR ESTIMATING WATER DEMAND

#### 3.1 Background

The task of estimating the water demand for Cyprus in the various sectors of use is not an easy one. Especially complex is the sector of Agriculture, where the irrigated areas have to be defined first (by crop category) and then their water needs have to be estimated.

Water use and water demand are two different things, as the first means the actual water applied (it is usually less than the water demand due to shortage) and the second means the actual need accounting for the losses at farm level and conveyance losses from the source of water. The study team has given considerable thoughts on the methodology to be applied in each sector, aiming to reach in the most accurate results.

Considering the new technology existing nowadays and especially the possibility of applying Remote Sensing Techniques, Geographic Information System (GIS) and others, the study team was looking for such methodology that could be used and be built for future use.

The significance of the information on reliable figures on water demand is realized in many reports, attempting to draw a water balance of the water resources and their use.

Records on irrigated areas with plot mapping on 1:5000 scale, has started before 1960, with more work carried out during the Cyprus Water Planning Project in 1970. Unfortunately those records and maps were not been updated since that time. On the other hand many data and information on various aspects of agriculture, agricultural crops, areas, water etc. have been collected in different areas and time periods and are kept by various Government Departments in files, not being computerized and hence difficult to be used.

#### 3.2 Agricultural Water Demand

In estimating the agricultural water demand, a two-step procedure was followed:

- Estimation of irrigated areas by crop category
- Estimation of water demand

The water demand was estimated by multiplying the irrigated area of a specific crop category with the water demand per unit area (see section: 3.2.3) of the specific crop.

Both areas and water demand were estimated by administrative village boundary and then grouped according to the watershed where they are situated.

Major Government Irrigation Schemes were treated separately and each Irrigation Scheme was considered as one unit with specific areas and a specific demand.

The information on the irrigated areas were based on two sources:

- On the **Crops/Growers Data Bank** information, prepared by the Department of Agriculture. This information was used for all areas outside the Major Government Irrigation Schemes. In addition the information of this data bank was used for the Vasilikos /Pendaskinos /Kiti /Pervolia and Kokkinokhoria Major Government Irrigation Scheme.

- On the records of irrigated areas kept for each Major Government Water Scheme by the Water Development Department. The water demand of these Irrigation Schemes was based on these records, except the Vasilikos /Pendaskinos /Kiti /Pervolia and Kokkinokhoria project which was based on the crops/growers data bank kept by the Department of Agriculture.

### 3.2.1 Crops/Growers Data Bank Prepared by the Department of Agriculture

The Department of Agriculture has started since 1994 the preparation of data bank information for all growers of Cyprus; the databank is updated on a continuous basis. The crops/growers data bank covers the following:

- Personal information on each Grower (Name, Identity Card No., Address, Village of Residence, Telephone No. etc.)
- Information on each Plot (Sheet No., Plan No., Plot No. based on the Land Registry Office-maps system (LRO-maps) and Identity Card No. of its owner)
- Type of crops, varieties, planted areas, irrigation characteristics etc. for each plot
- Information on Animal Husbandry

The Water Use Section of the Department of Agriculture has co-operated with the Water Development Department in organizing the information in a data bank system in order to be easily accessible, more useful and effective. The system aimed to be used both by the Department of Agriculture for subsidies, planning etc. and by the WDD for estimating the water demand. Mr. Kyriakos Alexandrou (Water Use Section of the Department of Agriculture) and Mr. Gerald Dörflinger (Assistant to the National Project Coordinator – WDD) have put a lot of effort in analyzing the information and preparing a workable data base system.

The irrigation water demand was estimated by areas as follows:

- By village boundary
- By watershed
- By irrigation project (for the major government projects)
- All the major government projects
- All the areas outside the government projects

The irrigated crops have been grouped in the following categories:

- **Permanent crops**
  - Citrus (includes also avocados)
  - Deciduous (apples, pears, peaches, cherries, prunes and plums, kiwi, *diospiros kaki* or lotos, walnuts, pecan nuts, hazelnuts, figs, pomegranates and irrigated almonds)
  - Olives
  - Table grapes
  - Bananas
- **Annual crops**
  - Open field vegetables
  - Potatoes (It has been separated only for Kokkinokhoria)
  - Greenhouses (includes vegetables and flowers)
  - Fodders

Annex 3-1 presents the methodology and steps in preparing the work.

### 3.2.2 Data on Irrigated Areas of the Major Government Irrigation Schemes

The WDD keeps records of the farmers and the irrigated crops for each of the major Government Irrigation Schemes. The information on the areas is believed to be of quite high accuracy and has been used in estimating the irrigation water demand for each project. The information was not so clear for part of the areas covered by the Southern Conveyor Project (Vasilikos/Pendaskinos to Kiti/Pervolia and the Kokkinochoria area).

Within the major Government Irrigation Schemes, farmers are also using groundwater for irrigation purposes. Very few government boreholes are used, whereas the private boreholes are numerous without many records on the water extraction and accurate information of the contribution of the groundwater in each project.

### 3.2.3 Crop Water Requirements

The Water Use Section of the Department of Agriculture has prepared the annual water demand per unit area for each crop, based on the class "A" pan evaporation data for 46 stations all over Cyprus, applying the IRRICROP program. Using the average values of the last 30 years of evaporation for each station and the elevation of the station interpolation was made for neighboring areas. The areas that constitute the evaporation regions are related to administrative village boundaries.

The data covered all the irrigated crops considering the following variables:

- Crop Acreage
- Class "A" Pan Evaporation Values (Adjusted according to the surrounding area)
- Period of irrigations for the specific crop
- Crop Coefficient
- Irrigation Efficiency at farm level

Annex 3-2 shows the irrigation water demand per unit area for the crops for the 46 stations. These figures include also the on-farm irrigation efficiency.

The Consultant considered those figures to be realistic and well near the actual water applied.

### 3.2.4 Comparison of Actual Water Use Data with the Estimated Water Demand

A lot of information on the actual water used during the last 5 – 10 years by each Government Water Scheme has been collected and analyzed. The data on actual use was compared to the estimated data.

Due to the drought in the recent years 1997-2000, there was considerable shortage and the cuts were significant in all sectors.

### 3.2.5 Water Demand for Animal Husbandry

Water demand for animal husbandry was based on the number of animals per category and the respective daily water demand for each head. The categories considered were:

- Cattle
- Pigs
- Sheep and goats
- Poultry

Data bank information on the size of the animal husbandry unit, type of animals, owner personal data, are kept and updated annually by the Animal Husbandry Section of the Department of Agriculture. The daily water demand per animal head includes the quantity for drinking and the corresponding amount for cleaning and washing the animal shed.

### 3.3 **Domestic Water Demand**

For the domestic sector a survey was carried out and the actual consumption was established. For the main towns the domestic water consumption for the last 10 years was analyzed in many instances. For the villages, a survey was carried out covering 100 communities in the various districts of Cyprus. Due to the water shortage in the recent years, the obtained survey results were adjusted to account for those shortages.

Thus the estimation of domestic water demand is based on the following:

- Review of the domestic water consumption for the last 10 years (Main towns)
- Calculation of the daily per capita consumption in the main towns
- Survey on a 100 villages to find out the daily per capita consumption
- Population projection over the years up to 2020
- Assessment of the water shortage during the recent dry years

Annex 6-1 presents the water demand by village/town for the years 2000, 2005, 2010 and 2020.

#### 3.3.1 Population Projection

The future domestic water demand was based on the population and tourism projection up to the year 2020.

For Tourism the projection is based on the CTO strategic plan (CTO, 2000) up to the year 2010 with an average growth of 3.4% and then extended to 2020 with a lower growth of 1.5% (Figure growth of 1.5% assumed by the Consultant).

For the population projection the census of 1992 and demographic reports (Ministry of Finance, 1994) were considered. The rate of growth of population that was considered is given in Table: 7.

Details of the population projection are shown in Annex 6-2, whereas Annex 6-3 presents the results of the projection by town/village.

Although the overall projection of the population seems to be correct, the distribution may not be so true due to the following reasons:

- Population is moving from villages to urban areas

- Some villages not far away from urban areas are increasing in much higher rate than others far away.
- The suburbs of the main towns have much higher rate of growth compared to the center of the towns. Thus the municipalities of those suburbs have higher domestic demand.

Year	Population Growth in %	
	Towns and Urban areas	Rural areas
<b>1999-2000</b>	1.0	0.6
<b>2000-2005</b>	0.8	0.5
<b>2005-2010</b>	0.7	0.4
<b>2010-2020</b>	0.6	0.4

Table: 7 Applied rate of growth of population for the years 2000 to 2020

The Turkish population was not considered due to the lack of information of the present population. It is believed that there are at present 88,000 Turkish Cypriot (about 55,000 Turkish Cypriot have left the island). The Turkish settlers are about 115,000 excluding the Turkish troops.

The Water Board of Lefkosia is giving about 1 million m<sup>3</sup> of water annually to the Turkish sector of Lefkosia. Water is also delivered to the Pyla village.

### 3.4 Tourism Water Demand

The tourism water demand was estimated based on a survey on the water consumption of 62 hotels in the tourist regions. With the co-operation of the Cyprus Tourism Organization (CTO) a number of hotels of various categories (5-, 4-, and 3-star Hotels and Hotel Apartments ``A`` and ``B``) have been randomly selected. CTO has confidentially released to the study team the guest nights for each hotel for three consecutive years 1996, 1997 and 1998.

	5*	4*	3*	H/A ``A``	H/A ``B``	TOTAL
<b>Lefkosia</b>	1	2	1		1	<b>5</b>
<b>Lemesos</b>	3	3	3	3	1	<b>13</b>
<b>Larnaka</b>	1	3	3	3	3	<b>13</b>
<b>Ammochostos</b>	3	3	3	3	2	<b>14</b>
<b>Pafos</b>	3	3	1	3	2	<b>12</b>
<b>Hill Resorts</b>		2	3			<b>5</b>
<b>TOTAL</b>	<b>11</b>	<b>16</b>	<b>14</b>	<b>12</b>	<b>9</b>	<b>62</b>

Table: 8 Number of Hotels and their Category selected in each Region

Similarly the study team has requested from the various municipalities where the hotels belong, the water consumption for the respective months and years.

All the municipalities have responded except Paralimni. Although a number of 85 hotels were originally selected, only 62 have been included in the study; the remaining either had not responded or showed unreliable data on water consumption and were rejected. The hotels included in the study are shown in Table: 8.

Since it was necessary to extrapolate the results of the sampled hotels to the whole of the hotel accommodation based on the percentage of each category and their guest nights contribution to the total guest nights per year, the 1- and 2-star hotels were treated as equivalent to the 3-star hotels.

The municipalities usually measured the water consumption of the hotels every 2, 3 or 4 months. In some instances the measurement was done every 6 months and in one case it was on a yearly basis. For analyzing the data, the following procedure was applied:

- The regions Ammochostos (Agia Napa and Paralimni), Hill resorts, Larnaka, Lemesos, Lefkosia and Pafos were treated separately. It was decided to calculate all data based on 2-month periods for all regions and all hotel categories to provide the opportunity of comparison between the data.
  - For each 2-month period and year the per capita water consumption was calculated by dividing the total water consumption of the hotel by the number of guest nights.
  - The per capita water consumptions for the three years were averaged to get one value for each period for each hotel.
  - The values for each hotel were averaged per hotel category to give one value for each period for each hotel category. Those are the resulting values of the survey giving per capita water consumption per period per hotel category and per region.
- Subsequently the distribution of the tourists (guest nights) over the periods of the year and the total number of guest nights per category and region were considered. Data was taken from CTO (1998).
  - The per capita water consumptions per hotel category and per region were weighted by the percentage of total guest nights for 1996-1998 per hotel category per region. This gives values of per capita water consumption representative for all hotels in the region per periods.
  - To get an annual value the values per period were weighted with the tourist distribution over the year.
- It was desirable to calculate results per village boundary in order to be able to compare them with the results from the other sectors.
  - Numbers of guest beds for all tourist establishments and the addresses of the establishments are provided in CTO (2001). From this data (a) the number of guest beds per town/village were calculated and (b) the villages constituting each tourist region were determined. From these values the percentage contribution of each town/village to the total number of guest beds per region was derived; the contribution of each village was considered to represent the portion of tourist water demand for the village.
  - The water demand per town/village resulted from multiplying the percentage contribution of each town/village to the total guest beds of the region with the total annual water demand of the specific region.

To project the future tourism water demands the figures of the CTO strategic plan (CTO, 2000) were used.

### **3.5 Industrial Water Demand**

The water demand for industry was based on data and information received from the various municipalities

### **3.6 Environmental Water Demand**

The environmental demand includes two categories of water demand:

- Landscape irrigation demand
- Water demand for ecological areas

#### **3.6.1 Water Demand for Landscape Areas**

Landscape areas within the house yards, municipal areas and playgrounds, exist in all main towns. Although there are not accurate information on the areas and the water used, an attempt was made to calculate the demand based on the following:

- Boreholes used for landscape irrigation (subsidized, illegal etc.)
- Estimated number of house gardens, municipal areas and playgrounds
- Amount of treated sewage effluent used at present for landscape irrigation.

The time was short for carrying out a survey and collecting more accurate information. However the results obtained seem quite reasonable.

#### **3.6.2 Water Demand of Ecological Areas**

The water demand of special ecological areas has been estimated based on the specific areas concerned. There is no detailed information on such demand.

## 4 WATER DEMAND OF AGRICULTURE

### 4.1 Main Findings

The **Total Annual Water Demand** for Agriculture reaches **182.4 million m<sup>3</sup>** and it is distributed as follows:

	<b>MCM</b>	<b>%</b>
<b>Irrigated Agriculture</b>		
• Major Government Irrigation Schemes	100.1	55%
• Areas Outside the Government Irrigation Schemes	74.3	41%
<b>Total Irrigated Agriculture</b>	<b>174.4</b>	<b>96%</b>
<b>Animal Husbandry</b>	<b>8.0</b>	<b>4%</b>
<b>TOTAL Agriculture</b>	<b>182.4</b>	<b>100%</b>

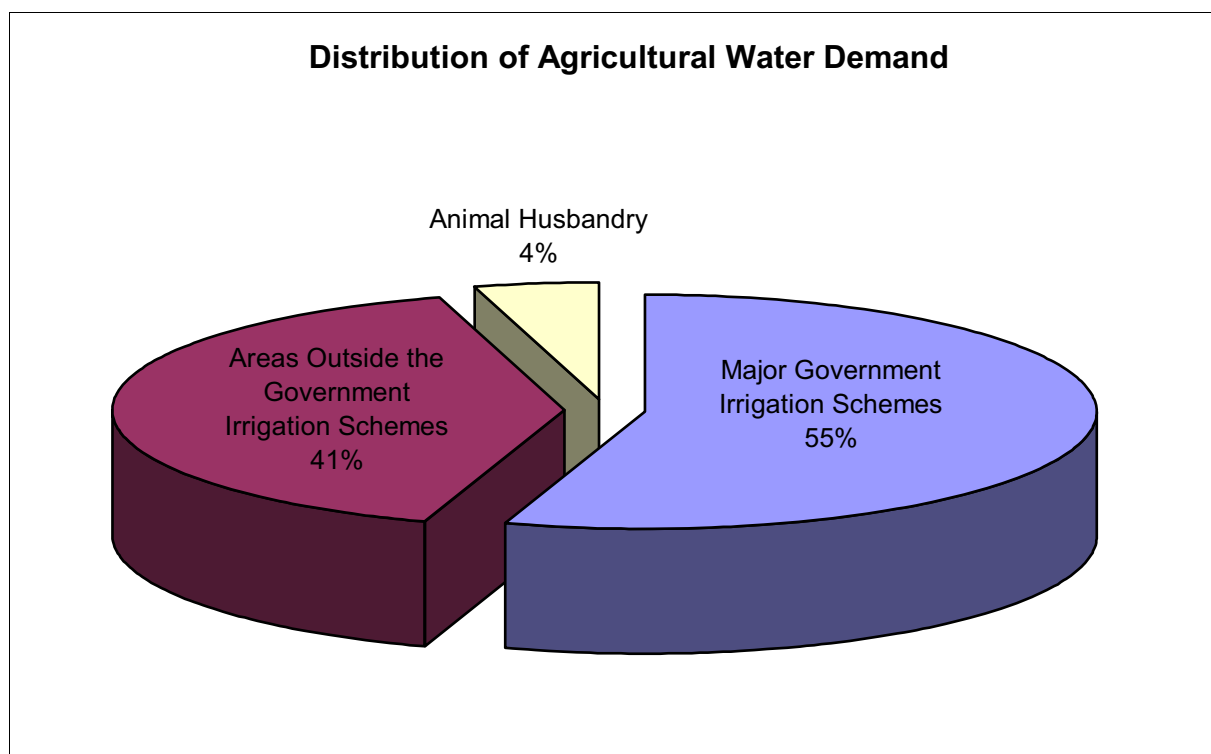


Figure: 5 Distribution of Agricultural Water Demand



The Irrigation Water Demand of 174.4 million m<sup>3</sup> is distributed by crop as follows:

	Water Demand in MCM			%
	Major Government Irrigation Schemes	Outside Govern. Irrigation Schemes	TOTAL	
<b>Permanent Crops</b>				
Citrus	35.2	16.7	<b>51.9</b>	<b>32%</b>
Deciduous	4.8	12.5	<b>17.3</b>	<b>11%</b>
Olives	5.1	3.4	<b>8.5</b>	<b>5%</b>
Table Grapes	2.7	2.7	<b>5.4</b>	<b>3%</b>
Bananas	3.2	0.01	<b>3.21</b>	<b>2%</b>
Remaining demand*		9.5	<b>9.5</b>	<b>6%</b>
<b>Total Permanent</b>	<b>51</b>	<b>44.8</b>	<b>95.8</b>	<b>59%</b>
<b>Annual Crops</b>				
Fodders	4.1	7.3	<b>11.4</b>	<b>7%</b>
Potatoes	10.5 **	2.3	<b>12.8</b>	<b>8%</b>
Greenhouses	2.6	0.3	<b>2.9</b>	<b>2%</b>
Open Field Vegetables	18.8 ***	19.6	<b>38.4</b>	<b>24%</b>
<b>Total Annual</b>	<b>36</b>	<b>29.5</b>	<b>65.5</b>	<b>41%</b>
<b>GRAND TOTAL (MCM)</b>	<b>87</b>	<b>74.3</b>	<b>161.3</b>	
+ Losses 15%	<b>100.1</b>	-	<b>174.4</b>	
<b>TOTAL (%)</b>	<b>57%</b>	<b>43%</b>		<b>100%</b>

Table: 9 Distribution of Water Demand by crop in MCM (Million m<sup>3</sup>)

\* Note: The remaining demand of about 9.5 million m<sup>3</sup> (estimated) corresponds to:

- Olives (Olive areas for Lefkosia District and about 15% of the olive areas in all other regions outside the Major Government Irrigation Schemes)
- Flowers and green-houses for the Lefkosia District
- Almonds for all regions (except Lemesos) outside the Government Irrigation Schemes

\*\* Includes only Kokkinokhoria

\*\*\* Potatoes are included in the Open Field Vegetables amounting to 2744 decars for all Government Irrigation Schemes except Kokkinokhoria

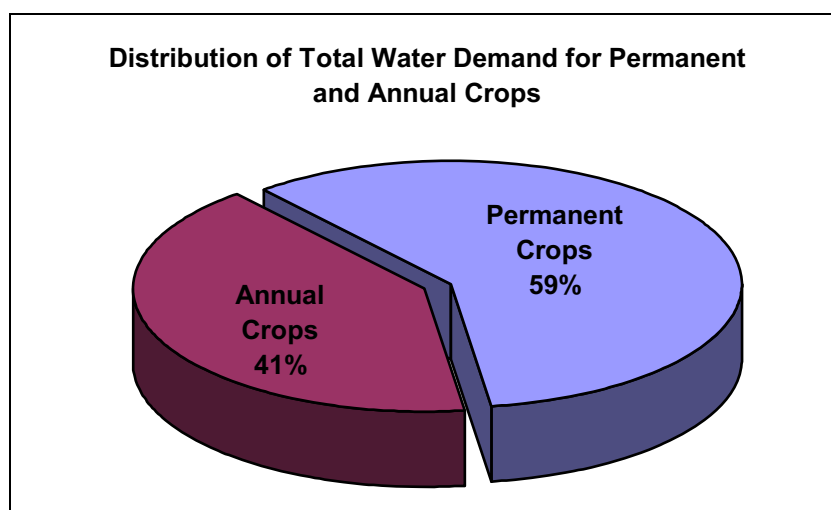


Figure: 6 Distribution of Total Water Demand for Permanent and Annual Crops

The total irrigated areas all over Cyprus (excluding remaining areas to be processed on Olives, Flowers, Greenhouses and Almonds as mentioned previously) are:

	<b>Irrigated Areas in Decars</b>			
	<b>Major Government Irrigation Schemes</b>	<b>Outside Govern. Irrigation Schemes</b>	<b>TOTAL</b>	
<b>Permanent Crops</b>				
Citrus	47662	23177	70839	26%
Deciduous	6483	18326	24809	9%
Olives	11375	8472	19847	7%
Table Grapes	10438	9636	20074	7%
Bananas	2899	10	2909	1%
Remaining areas*		14000 (estimated)	14000	5%
<b>Total Permanent</b>	<b>78857</b>	<b>73621</b>	<b>152478</b>	<b>56%</b>
<b>Annual Crops</b>				
Fodders	2377	6260	8637	3%
Potatoes	35457 **	7241	42698	16%
Greenhouses	2893	315	3208	1%
Open Field Vegetables	31354 ***	32827	64181	24%
<b>Total Annual</b>	<b>72081</b>	<b>46643</b>	<b>118724</b>	<b>44%</b>
<b>GRAND TOTAL (MCM)</b>	<b>150938</b>	<b>120264</b>	<b>271202</b>	<b>100%</b>

Table: 10 Distribution of Irrigated Areas by crop in Decars

\*, \*\*, \*\*\*, See Notes at Table: 9

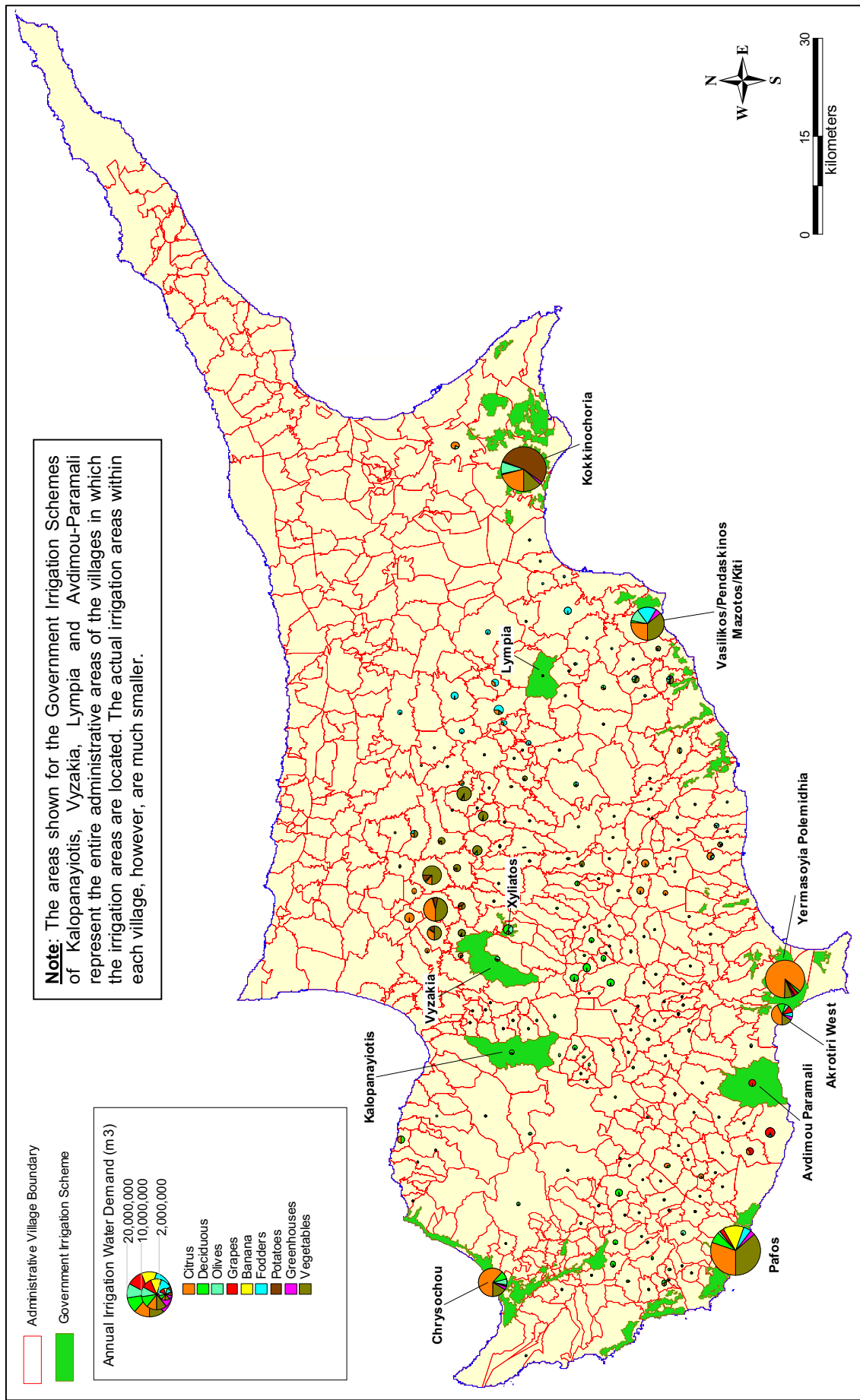


Figure 7 Map showing Annual Irrigation Water Demand (m<sup>3</sup>) for Government Irrigation Schemes and Villages per Crop Category

## 4.2 Major Government Irrigation Schemes

The Major Government Irrigation Schemes are:

- Pafos
- Chrysochou (Chrysochou, Pomos, Ag. Marina)
- Akrotiri West
- Yermasoyia – Polemidhia
- Vasilikos – Pendaskinos – Alaminos/Mazotos – Kiti/Pervolia
- Kokkinokhoria
- Kalopanayiotis
- Xyliatos
- Vyzakia
- Lympia
- Avdimou/Paramali

The Major Government Irrigation Schemes consume, including estimated 15% network losses, 100.1 million m<sup>3</sup> annually, i.e. 57% of the total Agricultural Water Demand.

The Government has spent considerable money on those projects and they are of major importance on the overall economy of Cyprus.

Table: 11 presents the irrigated crops within the Major Government Irrigation Schemes, whereas Table: 12 shows the Water Demand of those Projects.

The distribution of Irrigated Areas and Water Demand amongst the Major Government Irrigation Schemes showing as well the portions of Permanent and Annual Crops for each scheme are presented graphically in Figure: 8 and Figure: 9.

Details on each Water Scheme are given in Annexes 4-1 to 4-19.

	Areas in Decars													TOTAL	%		
	Pafos	Chrysochou/Argaka	Pomos	Agia Marina	Akrotiri West	Yermasoyia Polemidhia	Vasilikos/Pendaskinos/ Mazos/Kiti	Kokinochoria	Kalopanayiotis	Xylatos	Vyzakia	Lympia	Avdimou/Paramali				
<b>Permanent Crops</b>																	
Citrus	9213	6197	959	447	3100	17804	4242	5330	95	145	105	25	0	<b>47662</b>	32%		
Deciduous	2230	955	148	172	840	413	272	222	407	700	66	58	0	<b>6483</b>	4%		
Olives	862	1095	95	114	775	185	3119	3645	105	805	465	110	0	<b>11375</b>	8%		
Table Grapes	2318	191	0	6	2158	1619	112	0	0	0	0	0	4034	<b>10438</b>	7%		
Bananas	2841	5	34	19	0	0	0	0	0	0	0	0	0	<b>2899</b>	2%		
<b>Total Permanent</b>	<b>17464</b>	<b>8443</b>	<b>1236</b>	<b>758</b>	<b>6873</b>	<b>20021</b>	<b>7745</b>	<b>9197</b>	<b>607</b>	<b>1650</b>	<b>636</b>	<b>193</b>	<b>4034</b>	<b>78857</b>	<b>52%</b>		
<b>Annual Crops</b>																	
Fodders	0	124	5	0	321	80	1697	150	0	0	0	0	0	<b>2377</b>	2%		
Potatoes	*	*	*	*	*	*	*	35457	*	*	*	*	*	<b>35457</b>	23%		
Greenhouses	808	72	104	147	325	278	751	386	0	14	8	0	0	<b>2893</b>	2%		
Open Field Vegetables	13500	3500	160	200	2000	1500	6434	3500	20	250	250	40	0	<b>31354</b>	21%		
<b>Total Annual</b>	<b>14308</b>	<b>3696</b>	<b>269</b>	<b>347</b>	<b>2646</b>	<b>1858</b>	<b>8882</b>	<b>39493</b>	<b>20</b>	<b>264</b>	<b>258</b>	<b>40</b>	<b>0</b>	<b>72081</b>	<b>48%</b>		
<b>GRAND TOTAL</b>	<b>31772</b>	<b>12139</b>	<b>1505</b>	<b>1105</b>	<b>9519</b>	<b>21879</b>	<b>16627</b>	<b>48690</b>	<b>627</b>	<b>1914</b>	<b>894</b>	<b>233</b>	<b>4034</b>	<b>150938</b>	100%		

Table: 11 Irrigated Areas in the Major Government Irrigation Schemes in Decars  
\* Potatoes are included in the Open Field Vegetables

	Water Demand in MCM											TOTAL	%				
	Pafos	Chrysochou/Argaka	Pomos	Agia Marina	Akrotiri West	Yermasoyia Polemidhia	Vasilikos/Pendas./Mazos/Kiti	Kokkinochoria	Kalopanayiotis	Xylatas	Vyzakia			Lympla	Avdimou/Paramali		
<b>Permanent Crops</b>																	
Citrus	6.91	4.34	0.67	0.31	2.17	13.35	3.2	4.0	0.06	0.11	0.08	0.02	0	0	0	35.2	41%
Deciduous	1.67	0.67	0.1	0.12	0.59	0.31	0.22	0.17	0.24	0.6	0.06	0.05	0	0	0	4.8	6%
Olives	0.4	0.47	0.04	0.05	0.32	0.08	1.4	1.64	0.04	0.4	0.23	0.06	0	0	0	5.1	6%
Table Grapes	0.6	0.04	0	0	0.56	0.47	0.03	0	0	0	0	0	1.01	0	0	2.7	3%
Bananas	3.13	0.01	0.03	0.02	0	0	0	0	0	0	0	0	0	0	0	3.2	4%
<b>Total Permanent</b>	<b>12.7</b>	<b>5.5</b>	<b>0.8</b>	<b>0.5</b>	<b>3.6</b>	<b>14.2</b>	<b>4.9</b>	<b>5.8</b>	<b>0.3</b>	<b>1.1</b>	<b>0.4</b>	<b>0.1</b>	<b>1.0</b>	<b>1.0</b>	<b>51.1</b>	<b>59%</b>	
<b>Annual Crops</b>																	
Fodders	1.13	0.14	0.01	0	0.35	0.1	2.16	0.17	0	0	0	0	0	0	0	4.1	5%
Potatoes	*	*	*	*	*	*	*	10.46	*	*	*	*	*	*	*	10.5	12%
Greenhouses	0.78	0.06	0.08	0.12	0.24	0.26	0.73	0.33	0	0.01	0.01	0	0	0	0	2.6	3%
Open Field Vegetables	8.4	1.26	0.06	0.07	0.84	1	4.36	2.58	0.01	0.08	0.08	0.02	0	0	0	18.8	22%
<b>Total Annual</b>	<b>10.3</b>	<b>1.5</b>	<b>0.2</b>	<b>0.2</b>	<b>1.4</b>	<b>1.4</b>	<b>7.3</b>	<b>13.5</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>35.9</b>	<b>41%</b>	
<b>GRAND TOTAL</b>	<b>23.0</b>	<b>7.0</b>	<b>1.0</b>	<b>0.7</b>	<b>5.1</b>	<b>15.6</b>	<b>12.1</b>	<b>19.4</b>	<b>0.4</b>	<b>1.2</b>	<b>0.5</b>	<b>0.2</b>	<b>1.0</b>	<b>1.0</b>	<b>87.0</b>	<b>100%</b>	
Plus Losses (15%)	26.5	8.0	1.1	0.8	5.8	17.9	13.9	22.3	0.4	1.4	0.5	0.2	1.2	1.2	100.0		
<b>% of the Total</b>	26%	8%	1%	1%	6%	18%	14%	22%	0.4%	1%	1%	0.2%	1%	1%	100%		

Table: 12 Irrigation Water Demand of the Major Government Irrigation Schemes in MCM  
\* Potatoes are included in the Open Field Vegetables

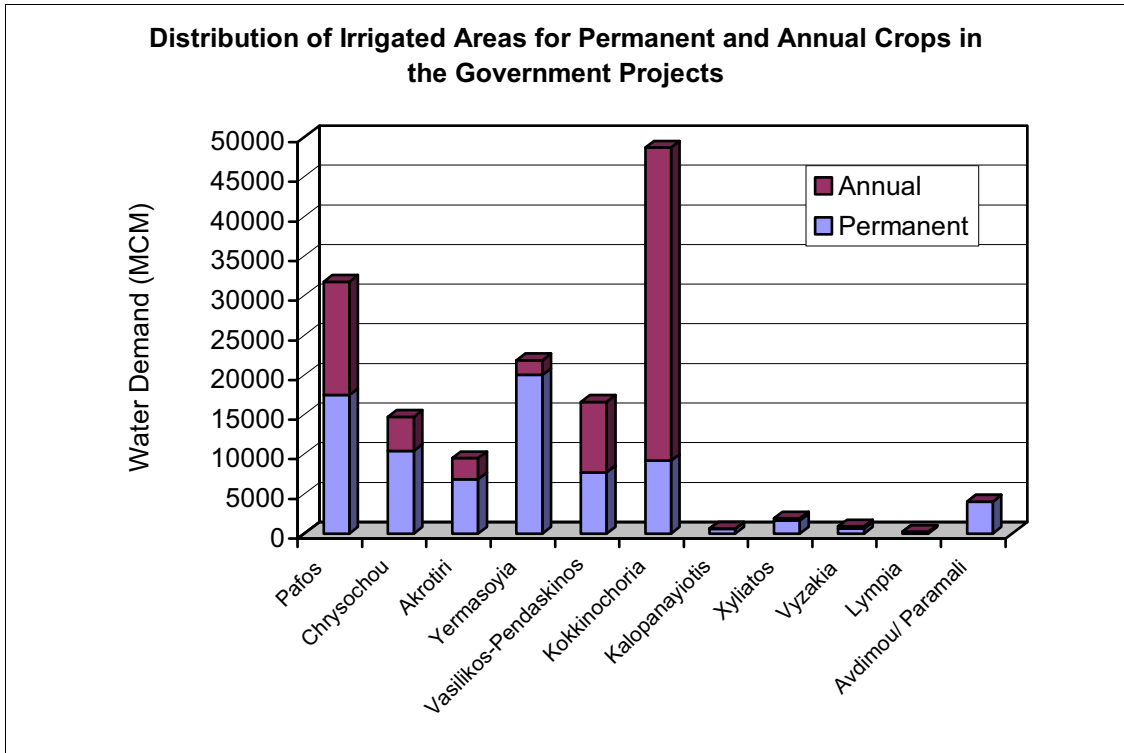


Figure: 8 Distribution of Irrigated Areas amongst the Major Government Irrigation Schemes showing as well the portions of Permanent and Annual Crops for each Project

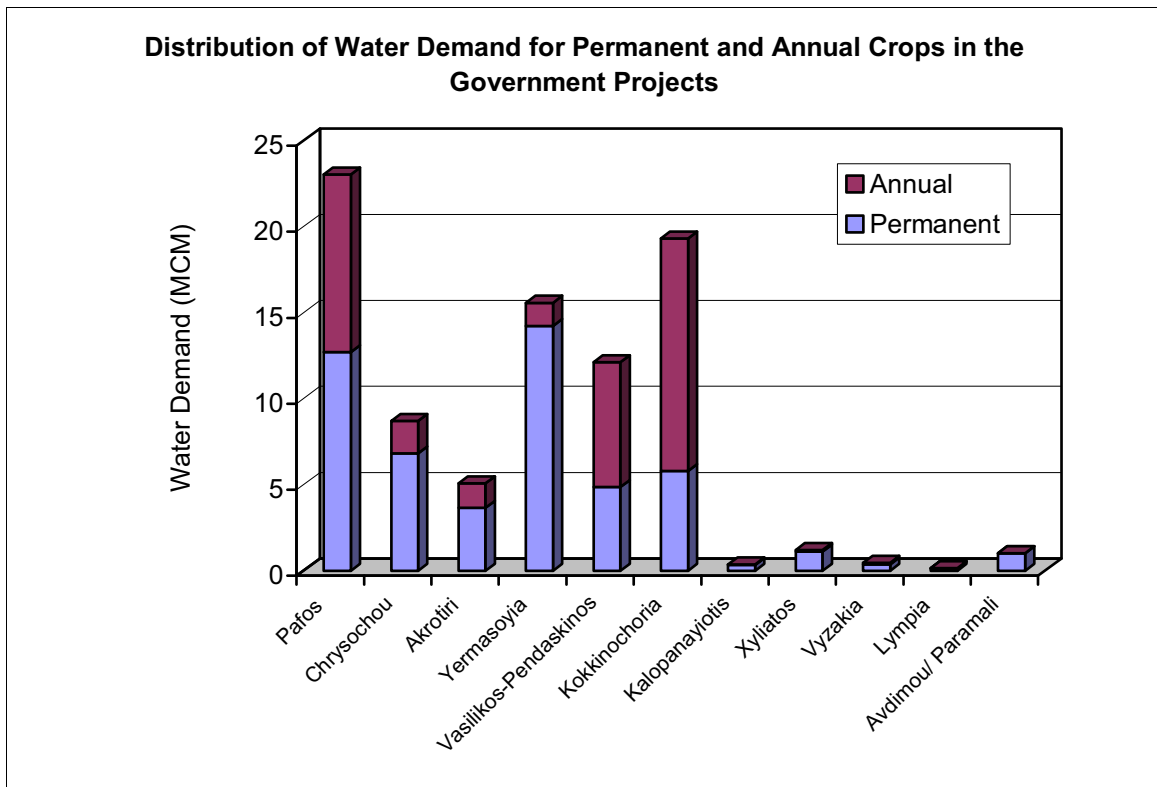


Figure: 9 Distribution of Irrigation Water Demand amongst the Major Government Irrigation Schemes showing as well the portions of Permanent and Annual Crops for each Project

### **4.3 Water Demand of Areas Outside the Major Government Irrigation Schemes**

The irrigated areas outside the Government Irrigation Schemes have an annual demand of about **75 million m<sup>3</sup>**. This demand represents the needs of scattered developed areas by individuals or community schemes all over Cyprus outside the Major Government Irrigation Schemes. Almost 96% of this demand is satisfied by groundwater. Within this category are also included the various small schemes with ponds in the Pitsilia area under the Integrated Rural Development Project and schemes receiving irrigation water from river diversions in the upper catchments.

The irrigated areas for each crop for all major watersheds are given in Table: 13 whilst the irrigation water demand for each crop for the same watersheds is presented in Table: 14.

The distributions of Irrigated Areas and Water Demand amongst various crops showing as well the portions of the Major Government Irrigation Schemes and the Areas outside of the Projects are presented graphically in Figure: 10 and Figure: 11.

The irrigated areas and the irrigation water demand per village and for each crop category are presented in Annex 4-20.



Watershed Name	Irrigated Areas per Crop in Decars									
	Citrus	Deciduous	Olive	Vines	Banana	Fodders	Potatoes	Greenh.	Veget.	Total
ACHNA-AMMOCHOSTOS AREA	656	23	267				23			968
AGIOS ATHANASIOS AREA	16	42	125	28						211
ARADIPPOU RIVER		14	5			812				831
ATSAS RIVER	69	21					6		110	205
AVGAS RIVER		18	169							188
CHRYSOCHOU RIVER	184	342	134	27						688
DHIARIZOS RIVER	880	1461	251	130		74	24		24	2845
EAST AKAMAS AREA			1							1
ELEA RIVER	469	86		7			11		120	693
EPISKOPI AREA	25	11	373				3		20	432
EZOUSA RIVER	303	2139	503	656		22	181		449	4253
GARYLLIS RIVER	175	87	65							327
GERMASOGEIA RIVER	2023	391	90	10		7				2522
GIALIAS RIVER	1138	170	230	2		2087	306		925	4858
KAMPOS RIVER	44	629		1			0		30	704
KARYOTIS RIVER	290	886				66	223		490	1955
KATOURIS RIVER	56	21	7							85
KHAPOTAMI RIVER	38	485	112	521			18		20	1195
KOKKINA AREA	70	55	55		1			31		212
KOMITIS RIVER	1813	33				106	1171		3500	6623
KOURIS RIVER	364	6309	486	1175			66		123	8522
KTIMA AREA	321	440	397	72	9	8	48		135	1431
LARNAKA SALT LAKE AREA						47	37		5	89
LIMNITIS RIVER			137							137
MAKOUNTA AREA	15	51	13			9			16	104
MARATHASA RIVER		122		5						128
MARONI RIVER	364	68	768	35					60	1295
MAVROKOLYMBOS RIVER	6	947	4	84			20		80	1141
MONI RIVER	1127	134	982	9		373	93	156		2873
ORMIDEIA-PARALIMNI AREA	12					76	39			127
OVGOS-SERRAKHIS RIVER	7771	989	409	35		320	4231		17846	31602
PARAMALI-AVDIMOU RIVER	60	83	181	76		17	27		32	476
PEDIAIOS RIVER	1086	232	154			1235	242		6705	9653
PENDASKINOS RIVER	6	11	18							35
PEYIA AREA		12	17	23						52
PISSOURI AREA	361	5	261	6200		60	9		47	6941
POUZI RIVER	84	222	523	32		219	99	9	1095	2282
PYRGOS RIVER	791	530	132							1453
TREMITHIOS RIVER	176	168	648	43		359	204	10	195	1803
VASILIKOS RIVER	1676	412	434	12			41			2574
VOROKLINI AREA	23		138			88				249
XEROPOTAMOS RIVER-Larnaka	53	118	321	242		241	60	109	680	1824
XEROPOTAMOS RIVER-Pafos	631	559	58	210		36	60		120	1675
<b>TOTAL</b>	<b>23177</b>	<b>18326</b>	<b>8472</b>	<b>9636</b>	<b>10</b>	<b>6260</b>	<b>7241</b>	<b>315</b>	<b>32827</b>	<b>106263</b>

Table: 13 Irrigated Areas per Crop for all Watersheds in Decars excl. Government Water Scheme areas.

(The Areas given do not include the estimated 14000 Decars remaining still to be processed)

Watershed Name	Irrigation Water Demand in 1000 m <sup>3</sup>									
	Citrus	Deciduous	Olive	Vines	Banana	Fodders	Potatoes	Greenh.	Veget.	Total
ACHNA-AMMOCHOSTOS AREA	459	15	107				5			585
AGIOS ATHANASIOS AREA	12	15	47	8						82
ARADIPPOU RIVER		10	2			893				905
ATSAS RIVER	31	12					1		33	77
AVGAS RIVER		13	59							72
CHRYSOCHOU RIVER	135	274	60	8						477
DHIARIZOS RIVER	700	954	95	33		97	3		7	1889
EAST AKAMAS AREA										0
ELEA RIVER	351	69		2			3		72	497
EPISKOPI AREA	16	7	145				1		11	180
EZOUSA RIVER	198	1364	214	136		24	48		217	2202
GARYLLIS RIVER	124	25	25							174
GERMASOGEIA RIVER	1397	261	31	3		9				1701
GIALIAS RIVER	801	136	70	1		2295	76		509	3888
KAMPOS RIVER	24	377							11	412
KARYOTIS RIVER	144	549				53	29		147	923
KATOURIS RIVER	31	12	2							46
KHAPOTAMI RIVER	30	346	38	142			3		9	568
KOKKINA AREA	48	39	24		2			24		136
KOMITIS RIVER	1360	26				122	351		2100	3960
KOURIS RIVER	201	4341	164	315			10		55	5086
KTIMA AREA	230	332	165	19	9	10	17		88	869
LARNAKA SALT LAKE AREA						52	16		3	71
LIMNITIS RIVER			35							35
MAKOUNTA AREA	10	36	5			10			9	70
MARATHASA RIVER		79		1						81
MARONI RIVER	273	57	369	11					39	748
MAVROKOLYMBOS RIVER	4	663	2	21			7		52	749
MONI RIVER	845	107	441	3		473	40	156		2066
ORMIDEIA-PARALIMNI AREA	8					88	12			108
OVGOS-SERRAKHIS RIVER	5929	775	199	10		377	1408		11136	19833
PARAMALI-AVDIMOU RIVER	47	60	63	23		20	6		14	234
PEDIAIOS RIVER	784	171	66			1574	86		3688	6368
PENDASKINOS RIVER	5	9	8							21
PEYIA AREA		8	3	6						17
PISSOURI AREA	289	4	112	1860		77	4		35	2381
POUZI RIVER	63	155	228	8		262	34	8	712	1471
PYRGOS RIVER	435	318	38							791
TREMITHIOS RIVER	129	122	257	12		394	55	8	112	1089
VASILIKOS RIVER	1097	298	159	3			8			1565
VOROKLINI AREA	16		51			97				165
XEROPOTAMOS RIVER-L/ka	40	83	135	60		289	21	98	442	1168
XEROPOTAMOS RIVER-Pafos	412	344	21	58		44	21		60	960
<b>TOTAL</b>	<b>16678</b>	<b>12465</b>	<b>3442</b>	<b>2742</b>	<b>10</b>	<b>7260</b>	<b>2266</b>	<b>295</b>	<b>19560</b>	<b>64718</b>

Table: 14 Irrigation Water Demand per Crop for all Watersheds in 1000 m<sup>3</sup> excl. Government Water Scheme areas.

(The given Water Demand does not include the 9.5 MCM remaining to be processed.)

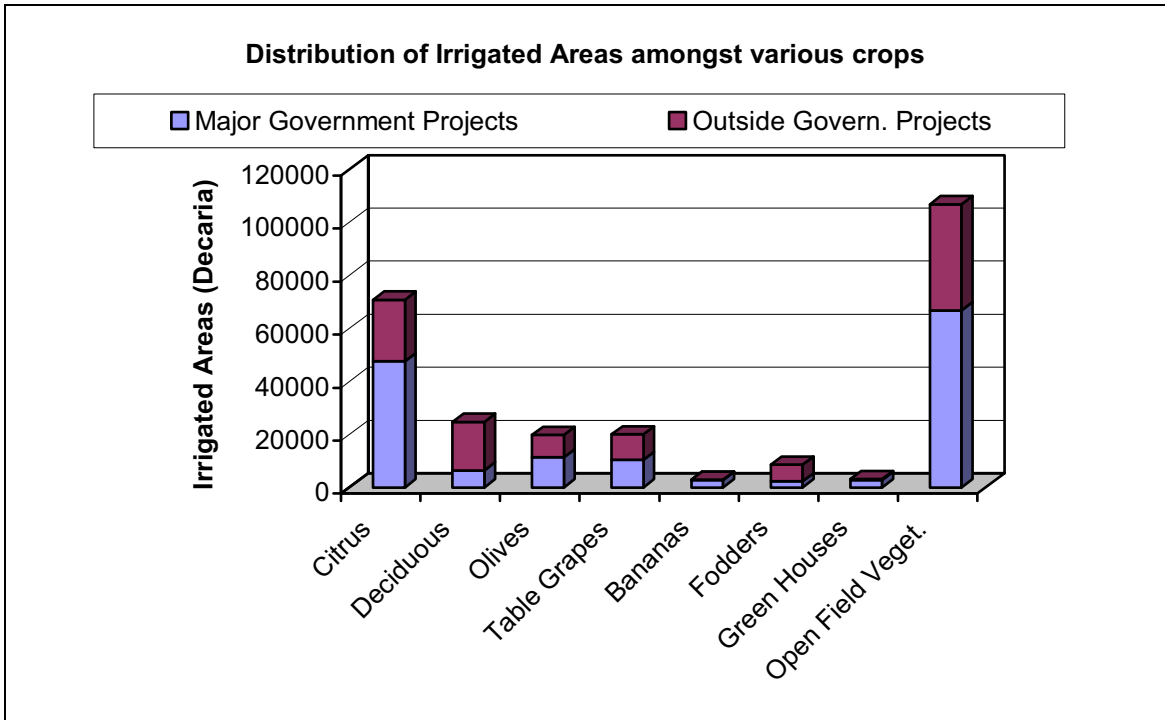


Figure: 10 Distribution of Irrigated Areas amongst various crops showing as well the portions of the Major Government Irrigation Schemes and the Areas outside of the Projects

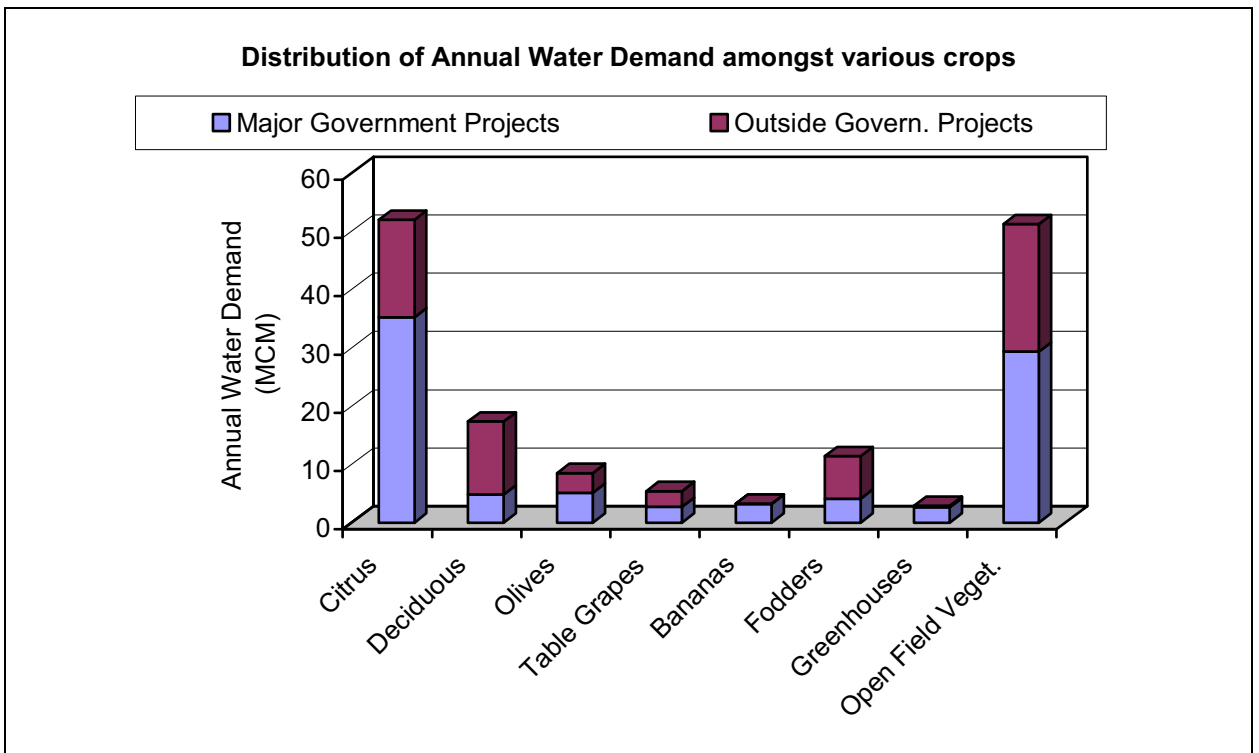


Figure: 11 Distribution of Annual Water Demand amongst various crops showing as well the portions of the Major Government Irrigation Schemes and the Areas outside of the Projects

#### 4.4 Animal Husbandry

The annual water demand for animal husbandry is estimated to be **7.98 million m3** and is divided in to the following:

Animal Category	Number of Animals	Daily Water Demand (L/day) *	Total Annual Demand (million m3)
<b>Cattle</b>	53979	150	<b>2.96</b>
<b>Pigs</b>	411427	15	<b>2.25</b>
<b>Sheep</b>	185457	8	<b>0.54</b>
<b>Goat</b>	265014	8	<b>0.77</b>
<b>Poultry</b>	16000000	0.25	<b>1.46</b>
<b>TOTAL</b>			<b>7.98</b>

Table: 15 Annual Water Demand by Animal Category for year 2000

\* Note: The Daily Water Demand per animal includes drinking and the corresponding amount for cleaning the shed.

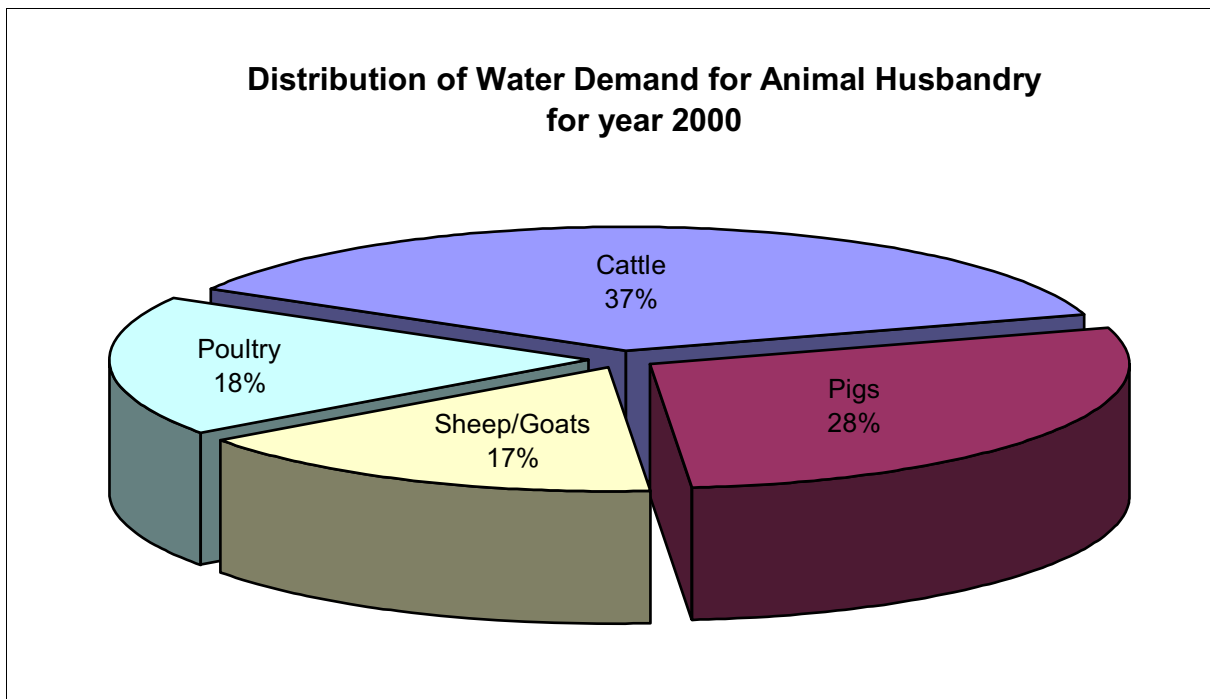


Figure: 12 Distribution of Water Demand for Animal Husbandry for year 2000

## Number of Animals by District

District	Cattle	Pigs	Sheep/Goats	Poultry
Lefkosia	19041	239507	85044	10160443
Ammochostos	4360	8817	28605	677269
Larnaca	26415	114485	114768	3307615
Lemesos	3255	32695	105540	1622534
Pafos	908	15923	116514	232139
<b>TOTAL</b>	<b>53979</b>	<b>411427</b>	<b>450471</b>	<b>16000000</b>

Table: 16 Number of Animals per District for year 2000

## Cattle are concentrated in the following villages:

Village	% of the total cattle
Dali	13.76
Athienou	13.63
Aradipou	12.09
Xilotympou	6.48
Dasaki Achnas	5.04
Geri	3.78
Dromolaxia	3.29
Potamia	2.86
Lymbia	2.54
Avdimou	2.17
Nisou	1.94
Troulloi	1.74
All other villages	30.68
<b>TOTAL</b>	<b>100.00</b>

## Water Demand by District in million m3

District	Cattle	Pigs	Sheep/Goats	Poultry	TOTAL
Lefkosia	1.04	1.31	0.25	0.93	<b>3.53</b>
Ammochostos	0.24	0.05	0.08	0.06	<b>0.43</b>
Larnaca	1.45	0.63	0.34	0.30	<b>2.72</b>
Lemesos	0.18	0.18	0.31	0.15	<b>0.82</b>
Pafos	0.05	0.09	0.34	0.02	<b>0.50</b>
<b>TOTAL</b>	<b>2.96</b>	<b>2.25</b>	<b>1.32</b>	<b>1.46</b>	<b>8.00</b>

Table: 17 Water Demand of Animal Husbandry per District

Annex 4-21 presents details of the animal distribution and their annual water demand.

## 5 ACTUAL WATER USE IN THE MAJOR GOVERNMENT IRRIGATION SCHEMES AND WATER SHORTAGE

During the years 1997 - 2000 there were limited supplies of irrigation water, due to low rainfall. The available water in the major dams had reached critical levels (Figure: 21) and priority was given for the domestic needs. In all projects the irrigation water was rationalized, with priority to permanent crops, covering only portion of their water demand.

The water allocated to farmers was in the range of 30% to 70% of the normal demand, depending on the type of crop and the availability of water in each project. In some projects the vegetable area was significantly reduced, in order to save water and cover part of the permanent crops.

Ground water reserves have played a key role, in overcoming shortages during the dry years of low rainfall. Private boreholes were extensively used during the 1997 - 2000 dry period. Some Government boreholes are part of the irrigation supply system (Chrysochou, Pafos Project etc.) besides the dams, however limited, compared to the numerous boreholes drilled by private farmers.

The year 2000 was one with the lower water availability and most dams had very little water stored. The areas of Vasilikos, Pendaskinos, Alaminos, Mazotos, Kiti, Pervolia and Kokkinochoria were much affected. The pumping of the ground water by farmers was on zenith, trying to save the permanent crops and secure some cash income from short growing, low water demand vegetables (winter-early spring potatoes).

The total water supplied for irrigation from all sources for the Major Government Irrigation Schemes for the year 2000 was as follows:

Normal water demand (including losses)	100.1	million m3
Supply from Government Sources	28.5	``
Estimated Groundwater Extraction (Private boreholes)	26.0	``
<b>Total Supply</b>	<b>54.5</b>	<b>``</b>
<b><u>Water Shortage</u></b>	<b><u>45.6</u></b>	<b><u>million m3</u></b>
	<b>or</b>	<b>45.6 %</b>

This is an average figure on water shortage of all the Major Government Irrigation Schemes. Some Projects have been more affected than others. On the other hand the ground water reserves are different in each project. In reality the water shortage on permanent crops was less due to the reduction of vegetable area.

Table: 18 presents details of the water resources situation and the water given for irrigation from all sources within the Government Irrigation Schemes

Figure: 21 shows the stored quantities of water of the Southern Conveyor Project dams (Kouris, Yermasoyia, Vasilikos, Lefkara, Dhypotamos) on the 1<sup>st</sup> of May of each year for the period 1988 - 2001.

Project Name	Dam Name	Capacity million m3	Water stored on 1/01/00	Water flown from 1/01/00-31/12/00	Storage end Year	Water Used		
						Domestic	Irrigation	TOTAL
<b>Pafos</b>	Asprokremmos	52.38	10.61	6.83	5.95	1.83	8.29	10.12
	Mavrokolymbos	2.18	0.6	0.61	0.32		0.8	0.8
	<b>Total dams</b>	<b>54.56</b>	<b>11.21</b>	<b>7.44</b>	<b>6.27</b>		<b>9.09</b>	<b>10.92</b>
	B/H & Diversions					3.87		3.87
	<b>Total Pafos</b>					<b>5.7</b>	<b>9.09</b>	<b>14.79</b>
<b>Chrvochohou</b>	Evretoiu	24	5.51	1.88	4.02		2.58	2.58
	Araka	0.99	0.11	0.93	0.21		0.83	0.83
	Pomos	0.86	0.1	0.81	0.17		0.87	0.87
	Acia Marina	0.3	0.08	0.16	0.09		0.21	0.21
	<b>Total dams</b>	<b>26.15</b>	<b>5.8</b>	<b>3.78</b>	<b>4.49</b>	<b>0</b>	<b>4.49</b>	<b>4.49</b>
	Boreholes(B/H)						0.59	0.59
	<b>Total Chrvochohou</b>						<b>5.08</b>	<b>5.08</b>
<b>South_Convevor</b>	Kourris	115	7.4	12.26	7.2	16.57	2.75	19.32
	Kalavastos	17.1	0.34	1.41	1.26	0.04	0.29	0.33
	Lefkara	13.85	0.12	1.26	0.96	0.16	0.05	0.21
	Dhvrootamos	15.5	0.1	1.36	1.23	0	0.19	0.19
	Yermasovia	13.5	1.1	2.74	1.14	1.73	0.48	2.21
	Potemidhia	3.4	0.26	0.41	0.38	0	0.35	0.35
	Kitri	1.6	0	1.01	0	0	0.36	0.36
	Ahna	6.8	0.08	0	0.05	0	0	0
	<b>Total Dams</b>	<b>186.75</b>	<b>9.4</b>	<b>20.45</b>	<b>12.22</b>	<b>18.5</b>	<b>4.47</b>	<b>22.97</b>
	Boreholes					10.11	5.38	15.49
	Desalination					13.63		13.63
	Treat.SewageAkrot.						1.28	1.28
	<b>Total S. Convevor</b>					<b>42.24</b>	<b>11.13</b>	<b>53.37</b>
<b>Lefkossia District</b>	Xvliatos dam	1.43	0.75	1.11	1.15		0.69	0.69
	Vvzakia	1.69	0.35	0.34	0.42		0.19	0.19
	Kaloonaviotis	0.36	0.11	0.28	0		0.4	0.4
	Lvmolia	0.22	0.02	0.18	0.22		0.02	0.02
	<b>Total dams</b>	<b>3.7</b>	<b>1.23</b>	<b>1.91</b>	<b>1.79</b>		<b>1.3</b>	<b>1.3</b>
<b>Arminou</b>	<b>Arminou dam*</b>	<b>4.3</b>	<b>0.93</b>	<b>12.18</b>	<b>1.84</b>		<b>2.05</b>	<b>2.05</b>
TOTAL DAMS		<b>275.46</b>	<b>28.56</b>	<b>45.75</b>	<b>26.61</b>	<b>20.32</b>	<b>21.39</b>	<b>41.71</b>
TOTAL B/H & DIV.						<b>13.98</b>	<b>5.84</b>	<b>19.82</b>
DESALINATION						<b>13.63</b>		<b>13.63</b>
TREATED SEWAGE Akrotiri							<b>1.28</b>	<b>1.28</b>
<b>GRAND TOTAL</b>						<b>47.93</b>	<b>28.51</b>	<b>76.44</b>

Table: 18 Major Government Irrigation Schemes - Water Used in the year 2000 (in MCM)

\*) Note: Most of the inflow in the Arminou Dam was diverted to the Kouris Dam

## 6 DOMESTIC WATER DEMAND

### 6.1 Main Findings

#### 6.1.1 Present Water Demand – Year 2000

Water Demand means the water needed. The actual consumption may be lower due to shortage of supply.

The distribution of domestic water demand for the year 2000 is as follows:

	Year 2000 - Water Demand in Million m <sup>3</sup> (MCM) Total (%)			Total (%)
	Domestic (Inhabitants)	Tourism	Total	
<b>Cities &amp; Suburbs</b>	39.3	13.3	52.6	78%
<b>All Villages</b>	11.3	0.8	12.1	18%
<b>British Bases</b>	1.8	-	1.8	3%
<b>Turkish Sector / Lefkosia*</b>	1	-	1.0	1%
<b>Total</b>	<b>53.4</b>	<b>14.1</b>	<b>67.5</b>	<b>100%</b>

\*) Note: The Water Board of Lefkosia provides about 1 million m<sup>3</sup> of water annually to the Turkish sector of Lefkosia

Table: 19 presents a more detailed picture of the above by presenting the water demand for all main towns separately.

	Water Demand in Million m <sup>3</sup> (MCM)			Total (%)
	Domestic (Inhabitants)	Tourism	Total	
<b>Lefkosia &amp; Suburbs</b>	16.6	0.7	17.3	26%
<b>Lemesos &amp; Suburbs</b>	12.8	3.6	16.4	24%
<b>Larnaka &amp; Suburbs</b>	5.8	2.0	7.8	12%
<b>Pafos &amp; Suburbs</b>	3.0	3.5	6.5	10%
<b>Ammochostos*</b>	1.2	3.5	4.7	7%
<b>All Villages</b>	11.3	0.8	12.1	18%
<b>British Bases</b>	1.8	-	1.8	3%
<b>Turkish Sector / Lefkosia**</b>	1.0	-	1.0	1%
<b>Total</b>	<b>53.4</b>	<b>14.1</b>	<b>67.5</b>	<b>100%</b>

Table: 19 Domestic and Tourism Water Demand for Cyprus (Government Controlled Areas only) for the year 2000

\*) Note: Ammochostos includes Paralimni, Derynia and Agia Napa

\*\*\*) Note: The Water Board of Lefkosia provides about 1 million m<sup>3</sup> of water annually to the Turkish sector of Lefkosia.



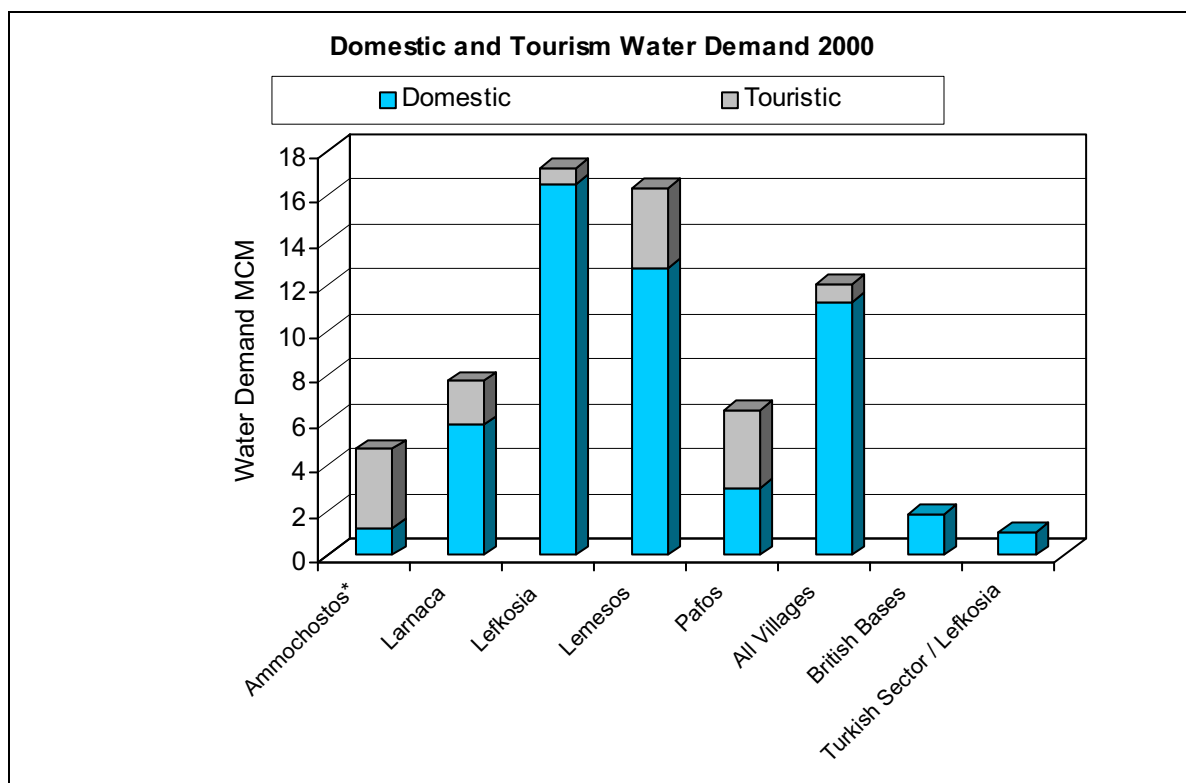


Figure: 13 Domestic and Tourism Water Demand per Main Town and Suburbs (Government Controlled Areas) for the year 2000

The above tables and figures do not include the demand for Industry and the demand of the population in the occupied areas.

#### 6.1.2 Present Population Distribution / Water Demand – Year 2000

	Population		Water Demand	
	No.	%	MCM	%
<b>Lefkosia</b>	211012	31%	16.6	33%
<b>Lemesos</b>	162688	24%	12.8	25%
<b>Larnaka</b>	73968	11%	5.8	11%
<b>Pafos</b>	37645	6%	3.0	6%
<b>Ammochostos</b>	15152	2%	1.2	2%
<b>All Villages</b>	172181	26%	11.3	22%
<b>Total</b>	<b>672647</b>	<b>100%</b>	<b>50.6</b>	<b>100%</b>

Table: 20 Population and Domestic Water Demand Distribution (Government Controlled Areas) excluding Tourism

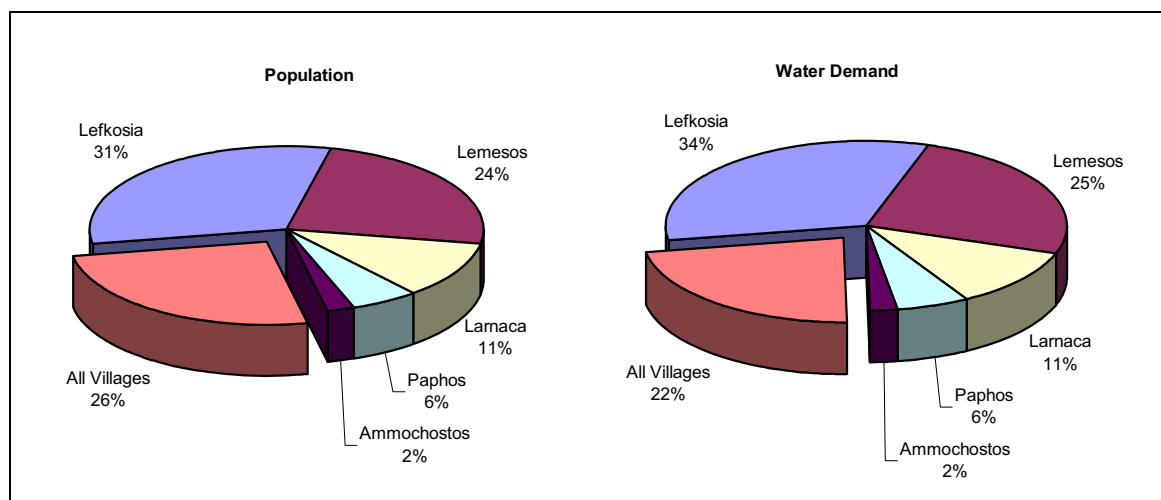


Figure: 14 Population and Domestic Water Demand Distribution (Government Controlled Areas) excluding Tourism

From the above it can be seen that, excluding the water demand of the British Bases and the supplementary supply to the occupied Turkish sector of Lefkosia:

- 74% of the population is in the main towns and suburbs and require 78% of the total domestic demand
- 26% of the population is concentrated in the villages and require 22% of the total domestic demand

### 6.1.3 Future Domestic Water Demand

The annual domestic demand for the years 2000 - 2020 within the Government controlled areas is estimated to be as follows:

Year	Water Demand in MCM (Million m <sup>3</sup> )				TOTAL MCM
	Domestic excl. Tourism	Tourism	Turkish Sector/ Lefkosia (Supplementary Supply)	British Bases	
<b>2000</b>	50.6	14.1	1	1.8	<b>67.5</b>
<b>2005</b>	55.1	18.0	1.3	2	<b>76.4</b>
<b>2010</b>	59.6	22.9	1.6	2	<b>86.1</b>
<b>2020</b>	69.5	30.8	2	2	<b>104.3</b>

Table: 21 Projection of the Annual Domestic Water Demand for all Cyprus (Government Controlled Areas) for the period 2000 to 2020

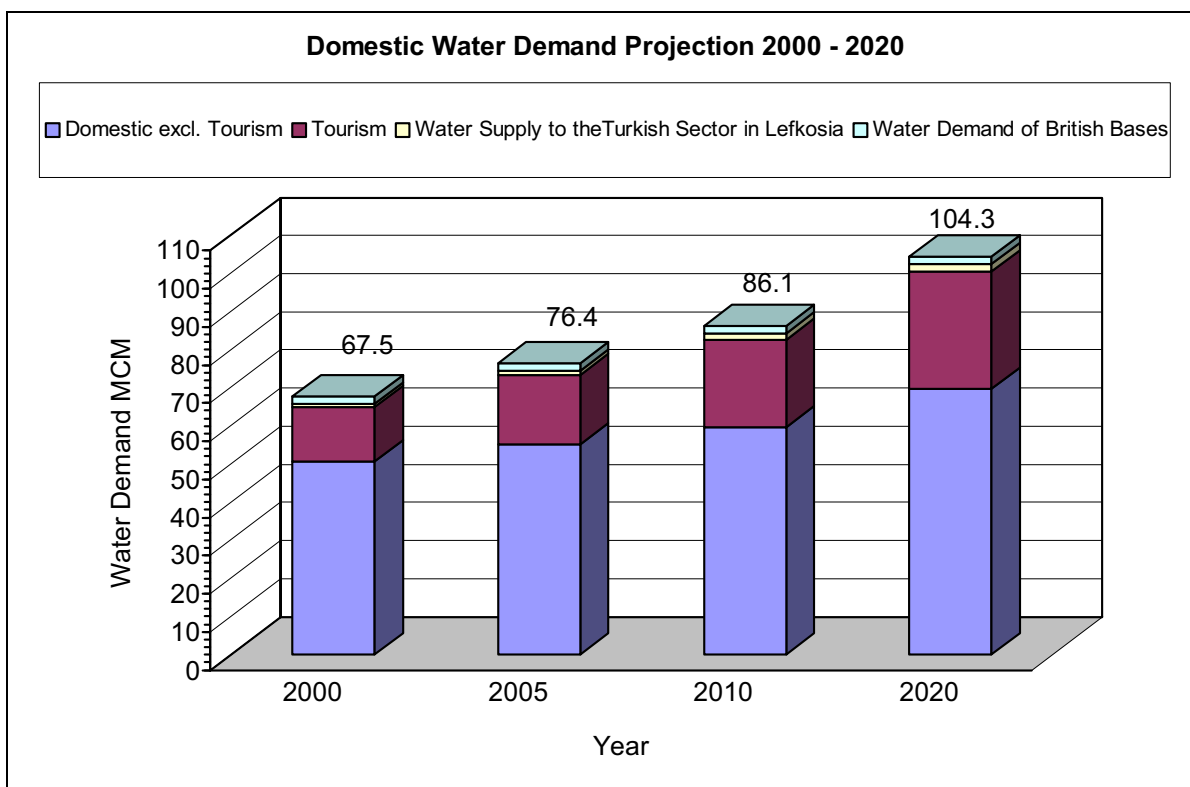


Figure: 15 Projection of Domestic Water Demand incl. Tourism for the period 2000 to 2020

Annex 6-1 shows the population and the domestic water demand by village/town for the year 2000 to 2020.

## 6.2 Per Capita Daily Water Demand

The final figures used regarding the daily per capita water demand are as follows:

### Per Capita Daily Water Demand in Litres

- **215 litres/day/capita (gross) or (180 net) for Towns and suburbs**
- **180 litres /day/capita (gross) or (150 net) for the Villages**

The above values have been increased annually by 1% from the year 2000 to 2005 and 2% over the rest of the period i.e. 2005 – 2020 to give the following values:

Year	2000	2005	2010	2020
<b>Towns</b>	215	226	237	262
<b>Villages</b>	180	189	199	219

Table: 22 Future Projection of the Domestic Per Capita Daily Water Demand at the source of water for the years 2000 to 2020 in litres/capita/day

Annexes 6-4 to 6-15 present the Water Consumption and Supply Sources for Lefkosia, Lemesos, Larnaka and Pafos.

Annex 6-16 presents the results of the Domestic Water Consumption in the villages for the year 1999.

During our survey it was found that there are considerable water losses from the various sources up to the consumer. Such losses were ranging from 12 to 35%.

### **6.3 Present Sources of Domestic Supply**

The sources of domestic water supply are of 4 categories:

- Springs
- Ground water through boreholes
- Surface water by using treatment plants
- Sea water through desalination units

The contribution of each source to the total domestic demand is as follows:

- 75% of the total domestic water demand is covered by the Treatment Plants and Desalination Units
- 20% is covered from groundwater through boreholes
- 5% is covered from springs

#### **Springs**

About 85 villages receive water from springs and over 100 villages get water from both, springs and boreholes.

#### **Groundwater**

The use of groundwater for domestic purposes is the main source for the majority of the villages. Even Pafos town and all the villages in this District depend at present on groundwater. Progressively the use of groundwater all over Cyprus, for domestic purposes, will be reduced due to its shortage and the deterioration of its quality.

An example of the reduction in the use of groundwater is the Lemesos Water Board, where in 1995 its contribution was 72% and that of the treatment plants was 28%. In year 2000 the picture was opposite as shown in Annex 6-9.

#### **Treatment Plants**

Treatment plants and desalination units are the focus of the Government [policy](#) trends at the present stage. The main towns and their suburbs receive their domestic water from treatment plants and desalination units.

The use of surface water through treatment plants has started in 1974 by constructing the **Choirokoitia Treatment Plant** of a daily capacity of 22,000 m<sup>3</sup> that was increased to 33,000m<sup>3</sup> per day in 1980. The treatment plant was receiving the water from Lefkara dam initially and from Kouris and Kalavasos as well at a later stage. The plant was covering part of the domestic needs for Lefkosia, Larnaka and Ammochostos area. With the construction of the Tersephanou treatment plant in 1999, the Choirokoitia plant was put aside and will be used only in emergency situations.

The second treatment plant built was the **Kornos Treatment Plant** with a daily capacity of 32,000 m<sup>3</sup> and the possibility to be increased to 48,000 m<sup>3</sup>. This plant has

started its operation in 1985 and basically supplies water to Lefkosia. The raw water to the treatment plant comes either from the Lefkara or from the Dhipotamos dam. It has also the possibility to receive water from the Kouris and Kalavassos dams through the Choirokitia reservoir. The plant has been put aside and is not operating at present.

The third plant is the **Lemesos Treatment Plant** that started operating in 1994 with a daily capacity of 40,000 m<sup>3</sup> and the possibility to be increased to 80,000 m<sup>3</sup>. The plant receives raw water from the Kouris dam and supplies water to the Lemesos city, some villages west of Lemesos and to the British Bases of Akrotiri.

The fourth plant is the **Tersephanou Treatment Plant** of 60,000 m<sup>3</sup> capacity with the possibility to be increased to 90,000 m<sup>3</sup>. The raw water comes from the Kouris and Kalavassos dams through the Southern Conveyor. It has also the possibility of receiving desalinated water from the Dhekelia Desalination Plant and sending it through its pumping station to Lefkosia via the Tersephanou-Lefkosia pipeline. The Tersephanou Treatment Plant supplies water to Lefkosia, Larnaka and Ammochostos areas.

The fifth plant is the **Asprokremnos Treatment Plant** with a daily capacity of 31,800 m<sup>3</sup> and the possibility to be increased to 47,700 m<sup>3</sup> per day. The plant is still under construction and will be completed by the end of 2001. The raw water will come from the Asprokremnos dam through pumping and by gravity from the diversion intake below the Kannaviou dam, through a 600 mm pipeline. The plant will supply water to the Pafos town and some villages around the low areas.

Treatment Plant	Capacity (m <sup>3</sup> /day)		Year of Construction	Status
	Present	Potential		
<b>Choirokoitia</b>	22000	33000	1974	Not operating
<b>Kornos</b>	32000	48000	1985	Not operating
<b>Lemesos</b>	40000	80000	1994	Operating
<b>Tersephanou</b>	60000	90000	1999	Operating
<b>Asprokremnos</b>	32000	48000	2001	Under Construction

Table: 23 Capacity and Status of Treatment Plants

### **Desalination Units**

The first desalination plant of significant capacity was the **Dhekelia Desalination Unit** established in 1997. Its capacity was 20,000 m<sup>3</sup> per day, however in May 1998 its capacity was increased to 40,000 m<sup>3</sup>. The unit covers part of the domestic needs of Ammochostos, Larnaka and Lefkosia.

The second desalination unit is the **Larnaka Airport Desalination Unit** with a daily capacity of 52,000 m<sup>3</sup>. The unit, which will started operating in May 2001, will supply water to Lefkosia and also to Larnaka if required, through the Tersephanou Treatment plant.

The third desalination unit will be constructed in **Lemesos**, whereas two other portable units are scheduled to be installed in the near future, one in **Paralimni** and one in **Pafos**.

Desalination Units	Capacity (m <sup>3</sup> /day)		Year of Construction	Status
	Present	Potential		
<b>Dhekelia</b>	40000	40000	1997	Operating
<b>Larnaka Airport</b>	52000	52000	2001	Operating
<b>Lemesos</b>				Under Planning
<b>Paralimni</b>				Under Planning
<b>Pafos</b>				Under Planning

Table: 24 Capacity and Status of Desalination Units

## 7 ACTUAL WATER USE IN THE DOMESTIC SECTOR – WATER SHORTAGE 2000

During the years 1997 - 2000 there was a considerable water shortage due to the limited availability of supply. The consecutive dry years of that period had a considerable impact on the formulation of new policy by the Government and look for alternative reliable sources of water supply for domestic purposes.

The actual per capita daily water consumption during the year 2000 was found to be as follows for the various towns:

Town	Litres/capita/day including losses
Lefkosia	150
Lemesos	215
Larnaka	162
Pafos	222
Villages	144

Table: 25 Actual per capita daily water consumption during the year 2000

Note: Pafos has the higher losses in the distribution network, which are over 30%

In the year 2000 the average shortage was in the order of 23.4% of the normal demand as shown below:

TOWNS	Actual Water Consumption million m <sup>3</sup>	Estimated Water Demand million m <sup>3</sup>	Water Shortage % of the Estimated Demand
Lefkosia & Suburbs	13.2	18.2	27.5
Lemesos & Suburbs	15.2	18.2	16.5
Larnaka & Suburbs	5.4	7.8	30.8
Pafos & Suburbs	4.9	6.6	25.8
Ammochostos*	4.0	4.7	14.9
All Villages	9.0	12.0	25.0
<b>TOTAL</b>	<b>52.7</b>	<b>67.2</b>	<b>23.4</b>

Table: 26 Domestic Water Shortage including Tourism for the year 2000.

\*) Note: Includes Paralimni, Derynia and Agia Napa

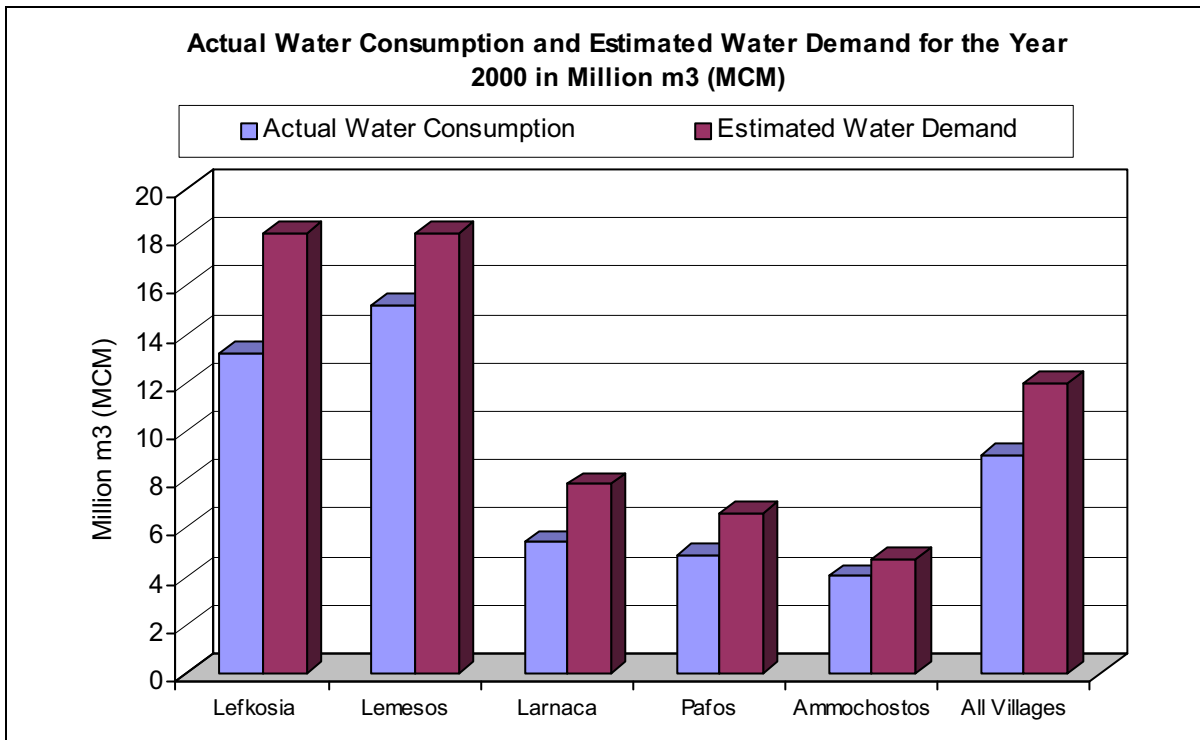


Figure: 16 Actual Water Consumption and Estimated Water Demand for the Year 2000

Note: The values for the cities include their suburbs as well. Ammochostos includes Paralimni, Derynia and Agia Napa.



## 8 TOURISM WATER DEMAND

### 8.1 Main Findings

The domestic water demand for the Tourism was estimated to be **14.11 MCM** (Million m<sup>3</sup>) during the year 2000. However due to water shortage the actual consumption was lower than the above figure.

Region	Water Demand 2000 in MCM
Ammochostos	3.53
Hill Resorts	0.77
Larnaka	1.95
Lefkosa	0.71
Lemesos	3.59
Pafos	3.56
<b>TOTAL</b>	<b>14.11</b>

Table: 27 Water Demand of the various regions for year 2000

Every single tourist needs **465 litres per stay night**. This is a weighted average figure of a survey carried out in 65 hotels of various categories in the tourist areas of Cyprus for three years (1996, 1997, 1998). The water demand is distributed as follows:

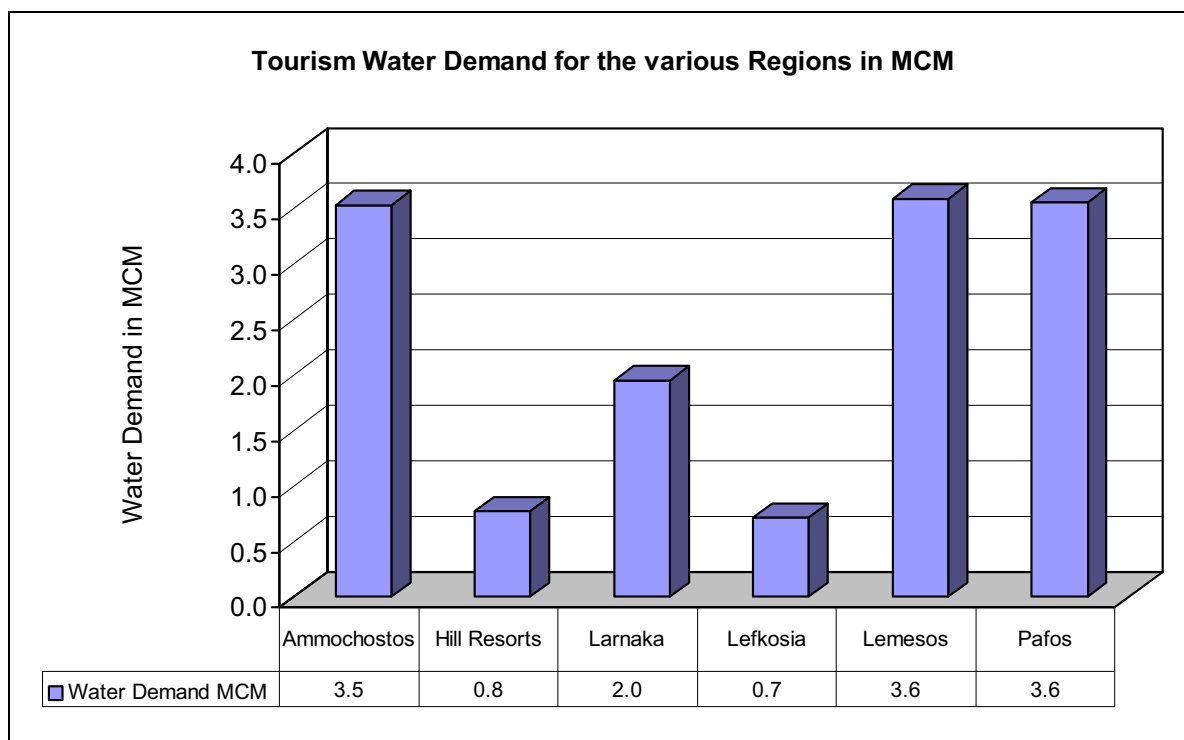


Figure: 17 Water Demand of the various regions for year 2000

The above demand includes the overall water demand of the hotel to operate (kitchen toilets, bath, cleaning etc. however not for landscaping since practically all the hotels have another source for irrigating the gardens - borehole or treated sewage effluent).

## 8.2 Present Water Demand for Tourism

The Distribution of Tourists in the various regions is as shown below:

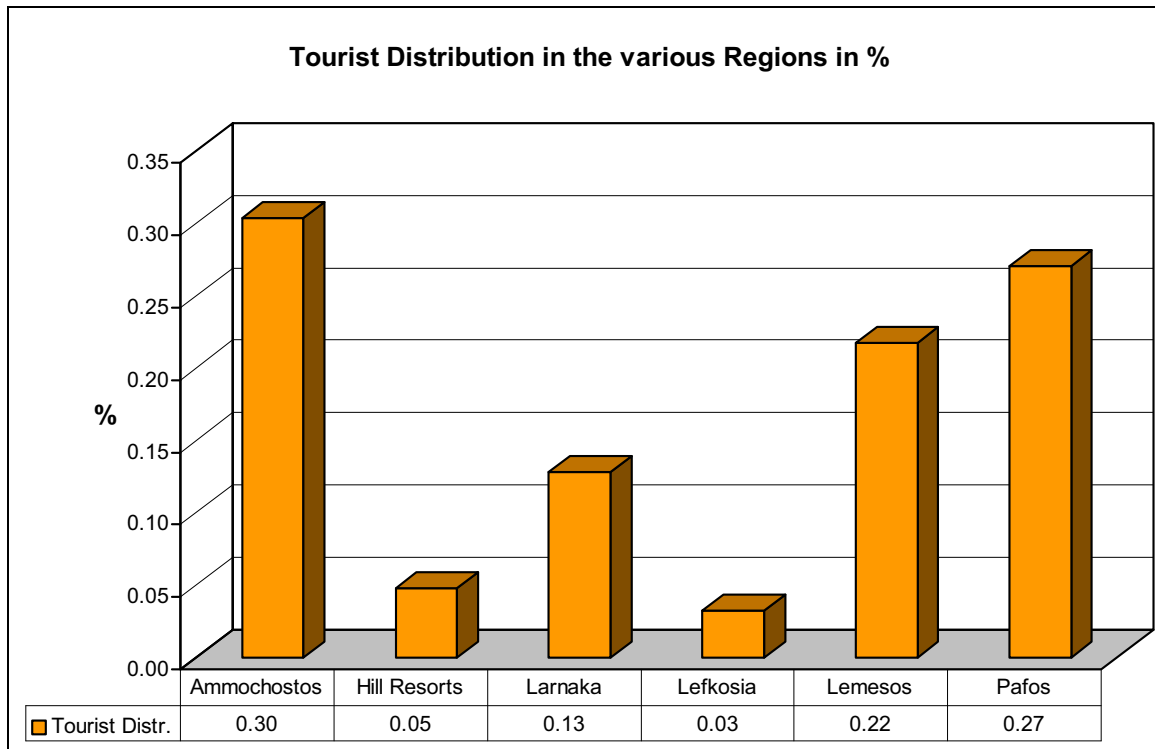


Figure: 18 Tourist Distribution in the various regions – Figures from CTO

### AVERAGE LENGTH OF STAY OF TOURISTS (DAYS)

(Figures from Cyprus Tourism Organization)

Year	Days
1993	12,2
1994	12,0
1995	11,5
1996	11,0
1997	11,5
1998	11,3
1999	11,3
2000	11,3

Table: 28 Average Length of Tourist –Stay in Days

	Region					
	Ammochostos	Hill Resorts	Larnaka	Lemesos	Lefkosia	Pafos
<b>Per Capita (L/d) *</b>	266	442	349	378	505	344
<b>Shortage</b>	<b>20%</b>	<b>0%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>5%</b>
Per Capita after Shortage (L/d)	319	442	419	453	606	361
<b>Losses</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>	<b>20%</b>
Per Capita after Losses (L/d)	383	530	502	544	727	433

Table: 29 Details of the per Capita Water Demand calculations for the various regions and for whole Cyprus.

\*) Note: Survey results for the years 1996, 1997 and 1998

The 20 % water shortage is an average figure as mentioned in WDD (2000) for the Major Government Works - Domestic Supply - Achieved water economy of the applied measures as a result of the limited water availability (WDD, 2000, Page 6). This figure is also derived from the Table: 26 of this report.

The per capita demand for each stay night varies in the various regions as shown below:

Region	Tourism Per Capita Water Demand (L/d)
Ammochostos	383
Hill Resorts	530
Larnaka	502
Lefkosia	727
Lemesos	544
Pafos	433
<b>Weighted Average for all Cyprus</b>	<b>465</b>

Table: 30 Per Capita Water Demand for the various regions (Based on a tourism survey)

The values in Table: 30 include Water-Shortage and Losses within the Water Distribution Network to give a Gross value of per Capita Water Demand per region at the original source of water. These values were averaged using the distribution of tourists (Figure: 18) between the regions as weight to give **465 L/d as per Capita Water Demand for whole Cyprus**.

With a total number of tourists of 2,686,000 in the year 2000 and average 11.3 Overnight Stays for each tourist (Figures by CTO) the Water Demand for each region and for whole Cyprus was calculated. The results are given in Table: 27 and in Figure: 17.

The **total Tourism Water Demand 2000** for whole Cyprus is therefore **14.1 MCM**

Annex 8-1 to 8-7 present details of tourist water demand per tourist region.

The numbers of Tourist Establishments, rooms and guest beds per town / village are given in Annex 8-8. The tourist water demand per town/village is presented in Annex 8-9.

### 8.3 Future Water Demand of Tourism

The future water demand of the Tourism is based on the expected increase of tourism as per the Strategic Plan of the Cyprus Tourism Organization (CTO, 2000). According to the Strategic Plan 2000-2010, the annual increase of Tourism will be in the order of 3.4%. For the period 2010-2020 a 1,5% annual increase was assumed. In actual figures, the number of tourist per year over the period 2000 - 2010 will be as follows:

Year	Expected No. of Tourists
2000	2,686,000
2001	2,777, 000
2002	2,872, 000
2003	2,969, 000
2004	3,070, 000
2005	3,175, 000
2006	3,283, 000
2007	3,394, 000
2008	3,510, 000
2009	3,629, 000
2010	3,752, 000
2020	4,355, 000

Table: 31 Projected Number of Tourist for the period 2000 to 2020. The projection is based on the Tourism Strategic Plan of the Cyprus Tourism Organization (CTO, 2000).

Based on the above projections and on the water consumption survey carried out, the future estimates on the Tourism water demand is as follows:

Year	Per Capita Water Demand (L/d)	Annual Water Demand in MCM
2000	465	14.11
2001	472	14.81
2002	479	15.55
2003	486	16.31
2004	494	17.12
2005	501	17.97
2006	508	18.86
2007	516	19.79
2008	524	20.77
2009	532	21.80
2010	540	22.88
2020	626	30.82

Table: 32 Projection of Tourism Water Demand for the period 2000 to 2020. Annual Increase of Per Capita Water Demand was assumed as 1.5%.

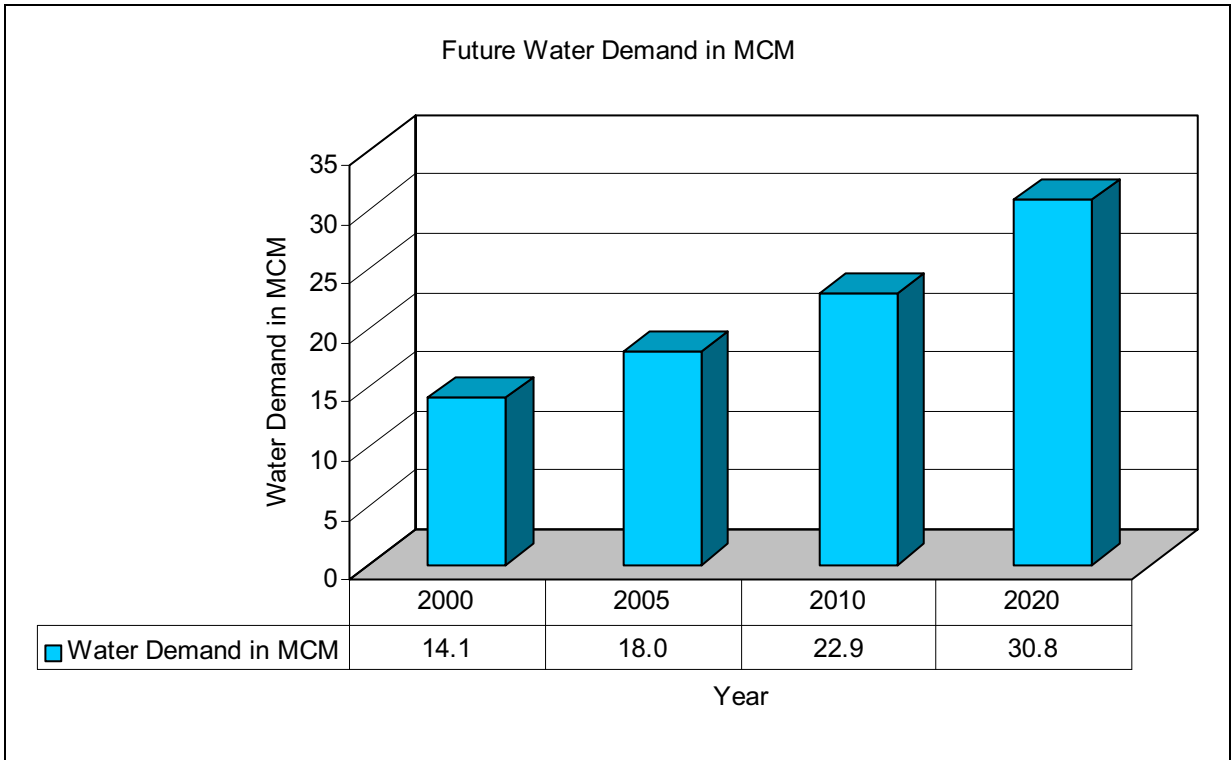


Figure: 19 Projection of Tourism Water Demand for the period 2000 to 2020

## 9 INDUSTRIAL DEMAND

The industrial sector uses the lower amount of water, compared to the agriculture, domestic and tourism sectors.

It has been estimated that the total annual water demand of the Industry at the year 2000, does not exceed the **3.5 million m<sup>3</sup>**. Such demand may increased to 4.0 million by the year 2005, 5.0 million by the year 2010 and 7.0 million by the year 2020 as shown below:

<u>Year</u>	<u>Water Demand MCM</u>
2000	3.5
2005	5.0
2010	6.0
2020	7.0

The distribution of the water demand in the main cities for the year 2000 was as follows:

Lefkosia	0.6 million m <sup>3</sup>
Lemesos	1.5 million m <sup>3</sup>
Pafos	0.2 million m <sup>3</sup>
Larnaka	0.2 million m <sup>3</sup>
Others (outside main cities) appr.	1.0 million m <sup>3</sup>
<b><u>TOTAL</u></b>	<b><u>3.5 million m<sup>3</sup></u></b>

Minor shortages in the Lefkosia and Larnaka during the year 2000 were insignificant and it may be said that the actual use and demand, are on the same level.

## 10 ENVIRONMENTAL DEMAND

The environmental demand reaches 19 million m<sup>3</sup> and is allocated as follows:

- Landscape irrigated areas	14 million m <sup>3</sup>
- <u>Natural ecological areas</u>	<u>5 million m<sup>3</sup></u>
<b>Total</b>	<b>19 million m<sup>3</sup></b>

Part of the landscape demand is covered by the domestic water supply and from the treated sewage effluent as follows:

- Domestic water supply	<b>5.5 million m<sup>3</sup></b> (included in the domestic water supply)
- <u>Treated sewage effluent</u>	<u><b>1 million m<sup>3</sup></b></u> (recycle water)
<b>Total</b>	<b>6.5 million m<sup>3</sup></b>

Thus the actual water resources needed for environment is:

<b>Landscape irrigation demand</b>	<b>7.5 million m<sup>3</sup></b> (groundwater)
<b>Demand of ecological areas</b>	<b>5 million m<sup>3</sup></b> (surface water)
<b>Total</b>	<b>12.5 million m<sup>3</sup></b>

### 10.1 Landscape Irrigation

Landscape irrigation exists all over Cyprus using:

- Municipal domestic water
- Groundwater
- Treated sewage effluent.

The irrigated areas are separated into the following categories:

- House gardens
- Municipal landscape areas
- Hotels
- Playgrounds

It has been estimated that the major landscape areas exist within the main towns with a total amount of water used annually reaching the 13 million m<sup>3</sup> as follows:

• Lefkosia town	4.5 million m <sup>3</sup>
• Lemesos town	4.0 million m <sup>3</sup>
• Larnaca town	2.0 million m <sup>3</sup>
• Pafos town	2.0 million m <sup>3</sup>
• Paralimni/Agia Napa town	1.5 million m <sup>3</sup>
<b>TOTAL</b>	<b>14.0 million m<sup>3</sup></b>

Municipal potable water was extensively used for house gardens in the past, however it has been considerably reduced nowadays, due to the water shortages.

The drilling of small size boreholes within the main towns by individuals, subsidized by the Government, has led the groundwater as the main source for irrigating the house gardens and hotels at the present time.

Playgrounds and municipal landscape areas are also irrigated mostly from groundwater through boreholes. Part of the municipal areas in Limassol and a number of hotels receive also water from the treated sewage effluent. Small treatment units exist also in many hotels, thus using the treated water for irrigating landscaped areas.

	<b>Groundwater m3</b>	<b>Municipal domestic m3</b>	<b>Treated effluent m3</b>	<b>TOTAL m3</b>
<b>Lefkosia</b>	3,000,000	1,500,000	Negligible	4,500,000
<b>Lemesos</b>	2,000,000	1,500,000	500,000	4,000,000
<b>Larnaca</b>	500,000	1,000,000	500,000	2,000,000
<b>Pafos</b>	1,250,000	750,000	Negligible	2,000,000
<b>Paralimni/Ag.Napa</b>	750,000	750,000	Negligible	1,500,000
<b>TOTAL</b>	<b>7,500,000</b>	<b>5,500,000*</b>	<b>1,000,000</b>	<b>14,000,000</b>

Table: 33 Landscape Irrigation Demand by source of water and district

\* The 5.5 million m3 municipal domestic water, has already been included in the domestic consumption.

Annex 10-1 gives details of the landscape irrigation demand.

## 10.2 Ecological Demand

In addition to the water demand of the natural environment (forest etc.) covered by the rainfall, some quantity is required for special ecological areas. Such areas include the flora and wild life of the riverbeds, lakes and marshes. In calculating the water resources from runoff, an allowance should be made to cover such demand. It is estimated that an annual demand of about **5 million m3** is required for such purpose. Examples of some of the rivers required to keep the natural ecological flora and wild life are:

- Dhiarizos
- Ezousa
- Kourris
- Evretou
- Kariotis
- Marathasa

Important ecological areas are also the Lemesos and Larnaka lakes and marshes.

Any future extension of forest areas should be taken into account in the assessment of the available water resources in the catchment areas. Forest water demand is covered by rainfall and hence such demand has to be considered in the runoff calculations.



## 11 TREATED SEWAGE EFFLUENT

Treated sewage effluent is another resource that should be given more attention and cover some of the needs in agriculture. Already some quantities are used for the following crops:

- Citrus
- Olives
- Vines
- Fodders
- Landscape

Complete records on the present use are not available.

The main Treatment Plants are:

- Lefkosia Sewage Board Treatment Plant
- Lemesos Sewage Board Treatment Plant
- Larnaka Sewage Board Treatment Plant
- Agia Napa – Paralimni Sewage Treatment Plant (Not operating)
- Pafos Sewage Board Treatment Plant (Not operating)

Currently the total annual capacity of all Treatment Plants is 17 388 800 m<sup>3</sup>/year. After the Anthoupolis-Lefkosia Treatment Plant will reach its maximum capacity the total annual capacity of all Treatment Plants will be 19 821 050 m<sup>3</sup>/year. However only portion of the above capacity is currently in operation.

Presently about 3 million m<sup>3</sup> of treated sewage effluent is used.

- 2 million m<sup>3</sup> for agriculture
- 1 million m<sup>3</sup> for landscape irrigation

Annex 11-1 presents the main Treatment Plants with their capacity all over Cyprus. Annex 11-2 presents the details of water used from the Moni (Lemesos) Treatment Plant.

Annex 11-3 presents the production and use of the Lemesos Sewage Treatment Plant.

It is estimated that by the year 2012 an amount of approx. 30 million m<sup>3</sup> of treated sewage effluent will be available for agriculture and landscape irrigation.

## 12 SOURCES OF WATER SUPPLY

The sources of water supply for all sectors are:

Water source	Estimated amount used million m <sup>3</sup> /year	%
Surface water	101.5	38%
Groundwater	127.4	48%
Springs	3.5	1%
Desalination units	33.5	13%
<b>TOTAL</b>	<b>265.9</b>	<b>100%</b>

Table: 34 Sources of Water Supply for all Sectors

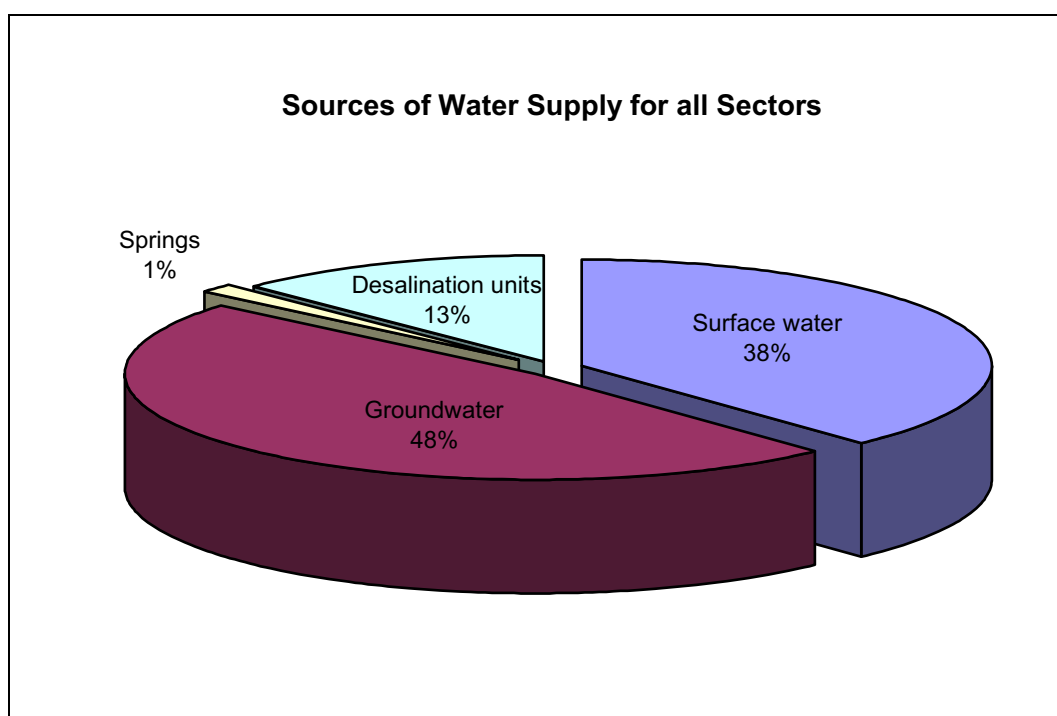


Figure: 20 Sources of Water Supply for all Sectors

- **Surface water**

Although the capacity of all the main dams is 273.6 million m<sup>3</sup>, the average annual amount of water available for use is 101.5 m<sup>3</sup> (estimated by the study team). During the dry year of 2000 the contribution for irrigation of all dams was only 28.5 million m<sup>3</sup> (Table: 18).

Out of the 101.5 million m<sup>3</sup>, 79 million m<sup>3</sup> are used within Government Projects and 3 millions m<sup>3</sup> outside (Mountainous areas Pitsilia etc.), 14.5 million m<sup>3</sup> for domestic use and 5 million m<sup>3</sup> are necessary for ecological areas.

The capacity of the main dams in Cyprus is 273.6 million m<sup>3</sup> as shown below:

Dam	Capacity (MCM)
Kouris	115.0
Asprokremnos	52.4
Evretou	24.0
Kalavastos	17.1
Dhyptamos	15.5
Lefkara	13.9
Yermasoyia	13.5
Ahna	6.8
Arminou	4.3
Polemihia	3.4
Mavrokolymbos	2.2
Vyzakia	1.7
Xyliatos	1.4
Argaka	1.0
Pomos	0.9
Kalopanayiotis	0.4
Agia Marina	0.3
<b>Total</b>	<b>273.6</b>

Table: 35 Major Dams and Dam Capacities

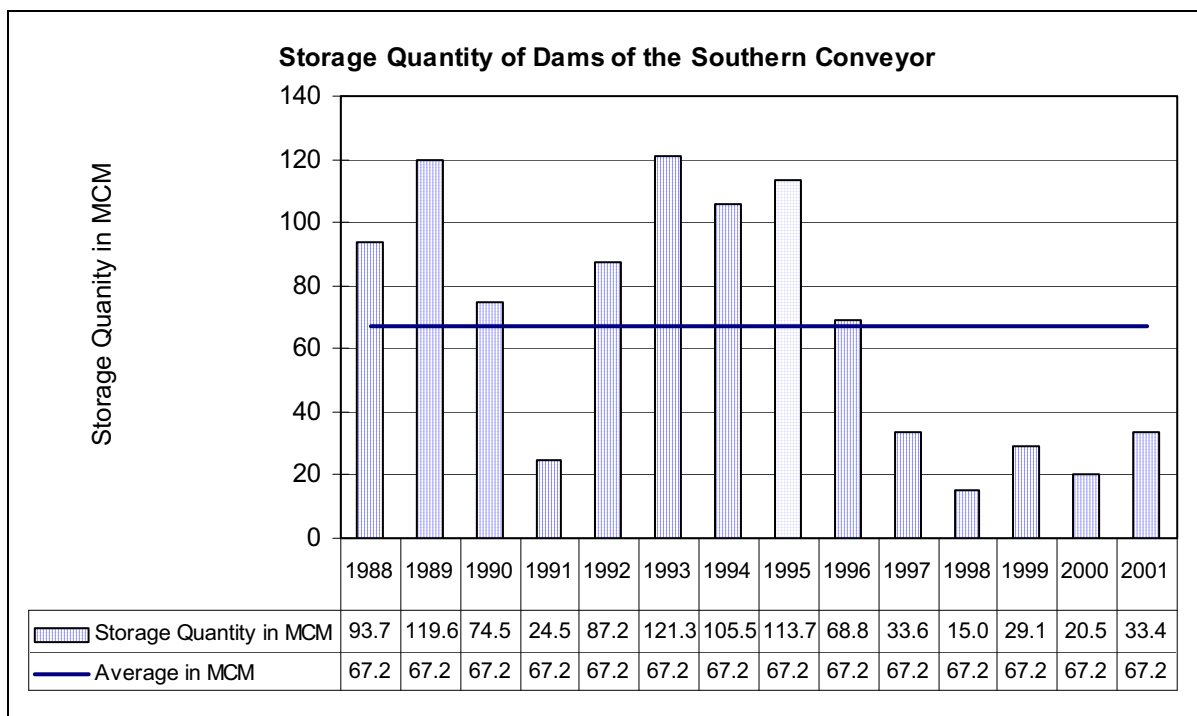


Figure: 21 Storage Quantity of the Dams of the Southern Conveyor on May 1st for the years 1988 to 2001

Certain quantity of the stored surface water resources is treated and used for domestic purposes. It is estimated that during the year 2000 an amount of 14.5 million m<sup>3</sup> was treated.

Below are shown the treatment plants with their capacities and status.

Treatment Plant	Capacity (m <sup>3</sup> /day)		Year of Construction	Status
	Present	Potential		
Choirokitia	22000	33000	1974	Not operating
Kornos	32000	48000	1985	Not operating
<b>Lemosos</b>	<b>40000</b>	<b>80000</b>	<b>1994</b>	<b>Operating</b>
<b>Tersephanou</b>	<b>60000</b>	<b>90000</b>	<b>1999</b>	<b>Operating</b>
Asprokremnos	32000	48000	2001	Under Construction

Table: 36 Treatment Plants and their capacity

- **Groundwater** extraction is estimated to be about **127.4** million m<sup>3</sup> on an annual basis (estimates by the study team). Such figure does not mean the safe yield of the aquifers, which is much lower.
  - 100.4 million m<sup>3</sup> are used for agriculture (26 million m<sup>3</sup> are within the Government Irrigation Schemes and 74.4 million m<sup>3</sup> are outside the Government Schemes
  - 16.0 million m<sup>3</sup> for domestic purposes
  - 3.5 million m<sup>3</sup> for industry
  - 7.5 million m<sup>3</sup> for the environment
- **Springs** contribute very little, amounting to 3.5 million m<sup>3</sup> per year, for the domestic use of the mountainous villages.
- **Desalination units** at present contribute up to 33.5 m<sup>3</sup> per year.

There are two desalination units at present:

- Dhekelia                      40,000 m<sup>3</sup>/day capacity
- Larnaka airport            52,000 m<sup>3</sup>/day capacity

**Note:** Spate irrigation for cereals, olives and almonds has not been counted in the use of the surface water resources.

### 13 PILOT SURVEY PROJECT

A pilot survey project is carried out in the Chrysochou river basin. It's main purpose is to examine the possibility of using remote sensing techniques and GIS for monitoring the land use changes on a yearly basis and estimating the water use and demand.

Images from the IKONOS satellite (year 2000), using 4 m resolution were used for land use interpretation through the Agrio-remote sensing Company. The land use results will be submitted by the end of October 2001. Similarly the Intelligraph Company will provide digitized farm plots for the same area on a GIS based system. Both Companies will work on a compatible base map/information system by overlaying the photointerpretation results to the vectorized farm plots and enable to work on GIS.

The results obtained will be compared with Crop/Growers database collected from the field survey, carried out by the personnel of the WDD (area within the Chrysochou Project).

For areas outside the Government projects a 30m resolution Landsat TM images are proposed to work out the land use interpretation with field survey for checking the results.

The objective of the pilot survey is to:

- Assess the possibility of applying remote sensing techniques for land use processing, in assessing the agricultural water use on a yearly basis within and outside the Government projects.
- Find out and compare the best method to be applied for updating the land use information on an annual basis.
- Apply the GIS and examine the possibilities of expanding the system all over Cyprus.

An effort should be made to lay down procedure and cost estimates of the methodology to be used and ways of achieving accurate results.

It is suggested that the pilot survey project is extended to cover a small catchment on the upper watersheds to evaluate the application of the method (RS) for irrigated areas on steep narrow river valleys (shadow problem on satellite images etc.).

## 14 CONCLUSIONS AND RECOMMENDATIONS

Water is a vital resource in the overall economy of Cyprus. Government realizing its importance has taken a lot of steps in water development, by construction works for storing, distribution, treatment and use of this resource.

Although water development has been well achieved, the management aspects of the water resources have not much progressed. The critical water situation, implies a satisfactory management policy.

Groundwater, although it is still the main source for supplying the irrigation demand for areas outside the Government projects, this resource has been mismanaged and neglected. Furthermore it plays a key role in supplementing and balancing the water shortages in drought years for areas within the Government projects. Groundwater reserves have been over pumped and diminished without any control. The numerous private borehole owners, have already felt the groundwater shortage and the situation will get worst without possibility of returning back to the original situation.

Surface water stored in dams, consist the main source of irrigation supply for the Government Irrigation projects. As most of the surface waters, have already been developed, further increase of the irrigated areas is unlikely. For such reasons the water demand for agriculture in the present study, has been kept constant with time and no further increase is foreseen in future.

Future domestic water supply is most likely to depend on more reliable water sources such as desalination. However the allocation of water resources for domestic purposes will depend on the overall policy and on the economics.

A lot of water is wasted and the issue should be addressed in a more dynamic way for maximizing its use in the future.

### **Some recommendations are listed below.**

1. Government is giving importance in setting up the necessary institutions and laws for managing the water resources. Such institutions should be under the supervision of the Ministry of Agriculture. The institutions will be at different levels:
  - Municipal
  - Project (irrigation, domestic)
  - District
  - Overall
2. The policy should allow for reallocating the water resources within the various sectors.
3. Agriculture takes at present the biggest portion of the water resources, whereas the contribution to the GNP is low. Water use policy should be based on the **most worth value crops** considering:
  - Water consumption crops.
  - Marketing issues
  - Economic analysis
  - Social and environmental impact.

4. Water policy should be compatible with the agricultural policy and harmonization to the corresponding European Union policy.
5. The role of private sector as a partner should be fully recognized in the management of the various irrigation and domestic supply projects.
6. The domestic water supply for most of the villages depends on the groundwater. It is anticipated that in future those villages will face water shortages. It is proposed that Government proceed in planning alternative ways of domestic water supply by creating projects, serving groups of such villages.
7. Face out water subsidies for both agriculture and domestic use. Such measures will lead to water economy by the consumers.
8. Reduce the conveyance and distribution losses in irrigation and domestic networks by setting up institutions for economic management.
9. Improve the operation and maintenance of the irrigation and domestic supply schemes through advanced technologies by combining central satellite distribution control and telemetry systems. All the supply schemes should be coupled with a central management information system.
10. Improve further the water use efficiency mainly in the agricultural and domestic sector. The awareness campaign should continue at various levels.
11. Considering that water is a national resource, an annual fee should be paid by borehole, spring and river diversion users. Even though in the ultimate management, payment should be based on the quantities used.
12. Water monitoring (water metering) for private boreholes, should be enforced through law.
13. Set up the necessary institutions for a data bank information system, annually updated, for growers, livestock-farmers, boreholes and surface water users, domestic consumers including tourism hotels and industrial water users.
14. Water policy for increasing the use of the treated sewage effluent for agricultural purposes, should be implemented.
15. Encourage the installation of small sewage treatment units, in industry, hotels and villages. Such units will increase the water available for agriculture and landscaping and will also improve the environmental conditions.
16. Protection of water resources from pollution, contamination and sea intrusion.
17. The agricultural policy should be compatible with the labour requirements and to the policy of imported foreign labour (seasonal or permanent).

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# **ANNEXES**





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of the Republic of Cyprus**

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**TCP/CYP/8921**

**REASSESSMENT OF THE ISLAND'S WATER RESOURCES AND DEMAND**

**Objective 1 – Output 1.5.1**

**The Assessment of Water Demand of Cyprus**

# **ANNEX 1-1**

**Terms of Reference  
of the National Consultant**



## **Terms of Reference**

### **National Consultant for Water Use Survey**

Under the general supervision of the Chief TCOC and the technical supervision of the Chief AGLW, FAO Headquarters and the close collaboration with the National Project Co-ordinator and national counterparts, the incumbent will assist the Division of Hydrology to re-assess the country's water use and demand. In particular he will:

1. Review the existing information on water use and demand for the different sectors, identify gaps and weakness.
2. On the basis of the above findings, design a methodology to re-assess water use and demand for the different water use sectors.
3. In particular for irrigation , test the methodology for a river single basin and adjust the methodology if necessary.
4. Carry out the survey for all sectors, with specific emphasis for agriculture.
5. Analyze results and produce a report on the re-assessment of water use and demand to be used as a basis for water management policy discussions.
6. Present the results in a high level workshop on the implications of the re-assessment of water use demand for water management policies.

#### **Qualifications:**

The candidate should have extensive experience in irrigation in the country and a good knowledge of data management and agricultural surveys.

Duration: 6 months

Duty station: Lefkosia



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## **ANNEX 1-2**

**People met by the National Consultant**



## PEOPLE MET

- Iacovides Iacovos, Chief Water Engineer, WDD. National Project Coordinator of the TCP/CYP/8921 Project
- Skordis Panayiotis, Civil Engineer, Division of Hydrology-WDD. Deputy National Project Coordinator of the TCP/CYP/8921 Project
- Ioannou Christos, Head of the Division of Hydrology, WDD
- Dörflinger Gerald, Watershed – Management Engineer. Assistant to the National Project Coordinator of the TCP/CYP/8921 Project
- Georghiou Adonis, Geologist, Division of Hydrology-WDD
- Parouti Louiza, Technician, Division of Hydrology-WDD. Assistant to the National Consultant of the TCP/CYP/8921 Project
- Photiou Takis, Head of the Water Use Section, Department of Agriculture
- Alexandrou Kyriakos, Water Use Section, Department of Agriculture
- Leondiadou Eleni, Water Use Section, Department of Agriculture
- Symeou Despina, Senior Tourist Officer, Organization & Planning Department, Cyprus Tourism Organization
- Tsiappa Ioanna, Statistical Services Department
- Dora Kyriakidou, Statistical Services Department
- Panaretou Savvas, District Agricultural Officer, Pafos.
- Constantinides Michalis, Agricultural Officer, Achelia, Pafos.
- Spanos Kyriakos, District Engineer, Pafos District Office-WDD
- Vasiliou Michalis, Head of Operation and Maintenance, Polis Chrysochou Irrigation Project-WDD
- Chrysostomou Giorgoulla, Civil Engineer, Pafos Irrigation Project-WDD
- Savvides Andreas, District Agricultural Officer, Lemesos
- Roumbas Nearchos, Agriculturist-Viticulturist-Oenologist, Department of Agriculture-Viticulture & Oenology, Lemesos
- Christoforides Marios, Agricultural Officer, Lemesos
- Siakalli Eleni, Civil Engineer, Operation & Maintenance of Irrigation Projects-WDD, Lemesos
- Karaiskakis Michalis, Operation & Maintenance of Irrigation Projects-WDD
- Papanastasiou Andreas, District Agricultural Officer, Lefkosia
- Rodosthenous Charalampos, District Agricultural Officer, Ammochostos
- Savvides Andreas, in Charge of Laboratory, Ministry of Agriculture, (Replacing District Agricultural Officer, Agros, Pitsilia)
- Eleftheriou Andreas, Water use Section, Department of Agriculture Eptagonia/Agros, Pitsilia
- Samouel Akis, Water Use Section, Department of Agriculture, Agros, Pitsilia

- Loucaides Glafkos, Water Use Section, Department of Agriculture, Eptagonia/Agros Pitsilia
- Stefanou Charalampos, Agriculturist, Department of Agriculture, Eptagonia/Agros, Pitsilia
- Kyprianou Charalampos, Agriculturist, Department of Agriculture, Eptagonia/Agros, Pitsilia
- Kyriakides Alkis, District Agricultural Officer, Larnaca
- Kyriakides Charalampos, Head of Domestic Water Supply, Pafos Municipality
- Kitsis Panayiotis, Technician, WDD, Pafos
- Markou Yiannakis, Technician, WDD, Pafos
- Kalasides Thrasyvoulos, Superintendent, WDD, Polis Chrysochou
- Kypris Andreas, Computer Specialist, WDD, Polis Chrysochou
- Kitromillides Demetris, Senior Technical Officer, Larnaca Water Board
- Mantovanis Damianos, Senior Technical Officer, Larnaca Water Board
- Demetriou Andreas, Chemical Engineer, Tersefanou Treatment Plant
- Savva Koula, Mechanical Engineer, Tersefanou Treatment Plant
- Iordanou Christos, Technician, Lefkosia Water Board



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## **ANNEX 2-1**

**Water used in all sectors for the year 2000**



## ANNEX 2-1

<b>WATER USED IN ALL SECTORS FOR THE YEAR 2000 (million m3)</b>			
<b>AGRICULTURE</b>			
Government Schemes		54.5	
Surface	28.5		
Groundwater	26		
Total	54.5		
Outside Gov. Schemes		59.4	
Estimated demand	74.3		
Shortage 20%	14.9		
Actual use	59.4		
Total irrigated agriculture		113.9	
Animal Husbandry		8	
<b>TOTAL AGRICULTURE</b>			<b>121.9</b>
<b>DOMESTIC</b>			<b>52.5</b>
<b>INDUSTRY</b>			<b>3.5</b>
<b>ENVIRONMENT</b>			
Estimated demand	12.5		
Shortage 20%	2.5		
Total Environment	10		<b>10</b>
<b>TOTAL WATER USED IN ALL SECTORS</b>			<b>187.9</b>
<b>ESTIMATED DEMAND FOR ALL SECTORS</b>			<b>265.9</b>
<b>WATER USED</b>			<b>187.9</b>
<b>SHORTAGE</b>			<b>78 29.3%</b>



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## **ANNEX 3-1**

**Development of a Databank for  
Related Agricultural Crop / Grower Information**



# **Development of a Databank for Related Agricultural Crop / Grower Information**

**Gerald Dörflinger**

Watershed Management Engineer  
Assistant to the National Project Coordinator

**May 2001**

ANNEX 3-1



**Acknowledgements**

I would like to thank Mr Iacovos Iacovides for giving me the opportunity to work on this project and for his permanent support.

Thanks are due to Loucas Savvides for the very good cooperation and for having the idea to include this separate description of the database and its development in his report.

I address a big “thank you” to Kyriakos Alexandrou for providing his basic version of the database and for his continuous help and numerous ideas on the design of the database.

Many thanks are due to the whole staff of the Division of Hydrology for helping on numerous occasions during the project and for making my stay so pleasant.

ANNEX 3-1

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ANNEX 3-1

## 1 Introduction

This report is a contribution to “The Assessment of Water Demand of Cyprus” of the project “Reassessment of the Island’s Water Resources and Demand”, TCP/CYP/8921 carried out by the FAO and the Water Development Department.

The “Assessment of Water Demand of Cyprus” carried out by Mr Loucas Savvides had to be based on exact information about the actual cropping pattern in Cyprus. This information was not available in the required compact form but was distributed over several archives, mainly in the Agricultural Department. Thus it was decided to develop a crop/grower databank in close cooperation with the Agricultural Department who provided the input data and a first small draft version of the databank.

The objective of this report is to describe the idea, the design and the development of the databank and the results realized by now.

As a definition, within this report the term “Grower” represents farmers and farming companies.

The aim of the databank is to provide easily accessible and editable information about farmers and farming companies, their land properties and the plantations on these land properties.

The database should, amongst other possible outputs, enable the user to:

- View all the land properties and plantations of a specific Grower in a compact form and edit them
- Collect cropping pattern information per district, village, per sheet or plan etc.
- Collect all the Growers cultivating a specific crop
- Collect information using other scenarios from among the stored input data.

The database is designed to be compatible with a future GIS application, which will give the opportunity to present the database outputs in the form of maps allowing quick overviews and easy visual analyses.

## 2 Databank Structure

All the information is organized in a computerized relational database i.e. information is, in order to reduce data redundancy, split into groups of logically related data and stored in different tables. Tables are then linked via relationships provided that related data in different tables can be retrieved correctly.

It was decided to design the databank with the program MS ACCESS.

The basic concept for the databank structure was formulated by Mr Kyriakos Alexandrou of the Agricultural Department who created a first small database employing the structure shown in Figure: 1 below.

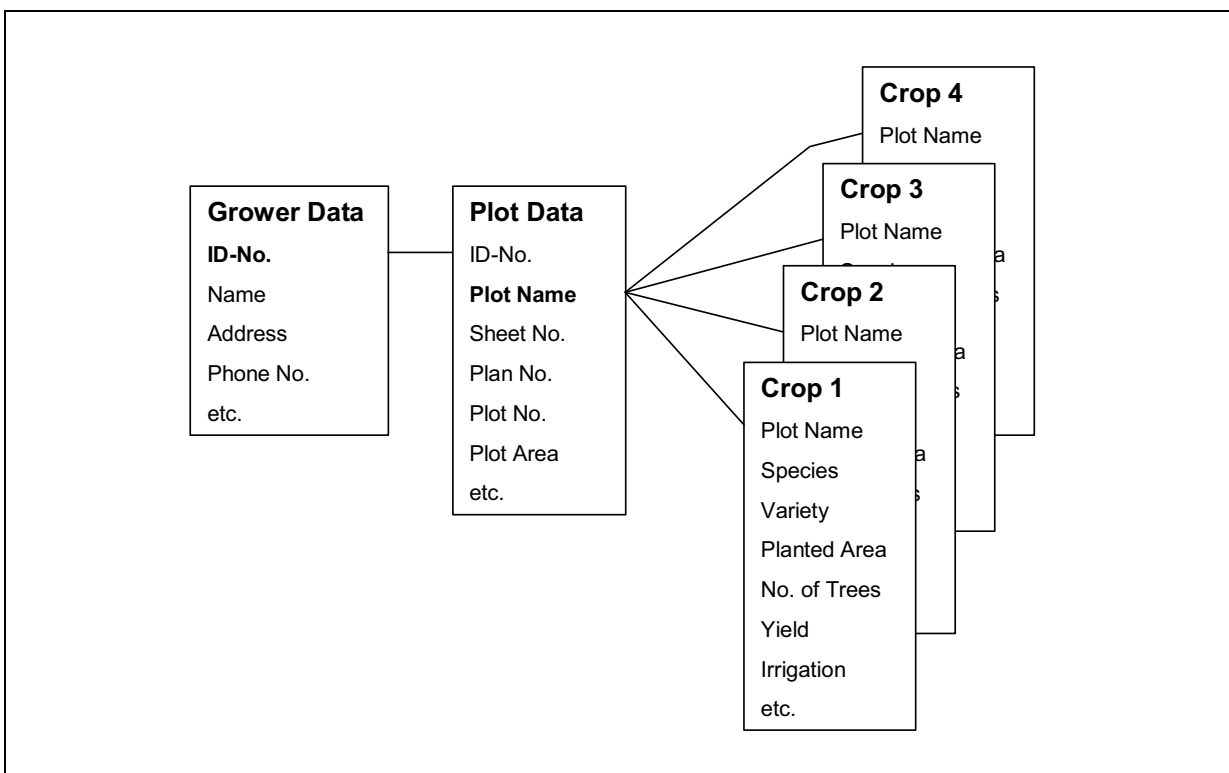


Figure: 1 Fundamental databank structure showing the three core tables. The number of Crop-Tables is chosen arbitrarily and may be expanded or reduced as required.

The main characteristic of the database structure shown in Figure: 1 is that all the data is grouped in three core tables. The first table contains “Grower Data” i.e. all the personal data on the farmer or the farming company. The second table contains “Plot Data” i.e. all the data related to a certain land property such as the sheet and plan on which the plot is located, the plot area etc. The third table contains data on plantations of a certain crop e.g. the species and variety, the planted area etc. According to the number of different crops that should be included in the database the number of

## ANNEX 3-1

Crop Tables may be expanded or reduced, whereas the tables “Grower Data” and “Plot Data” exist only once in the database.

In the Grower identity field (ID-No.) of the “Grower Data” table no duplicate values are allowed. This guarantees that every Grower appears only once within the database and his record is clearly identifiable with his ID-No. In the “Plot Data” table, the field “Plot Name” does not allow duplicate entries, ensuring that each plot is present only once.

The tables “Grower Data” and “Plot Data” are related via the Grower’s identity number (ID-No.); this relationship is a one-to-many type with the “Grower Data” table being the “one” side, as every Grower exists only once but may have several plots. To relate the “Plot Data” table to the various Crop Tables a special code was created. It is formed by lining up the numbers of the Sheet and the Plan on which the plot is located and the Plot Number itself. With this method a unique identification code (referred to as “Plot Name”) is assigned to each plot, which is used to relate a plot in the “Plot Data” table to a corresponding record in a Crop Table. The relationships between the “Plot Data” table and the Crop Tables are of the one-to-many type, the “Plot Data” table being the “one” side, as on every plot several different crops may be planted.

The three core tables described above are accompanied by several supporting tables. A detailed list of the different fields of each table including field types and sizes is given in Section: 4.

Within the tables “Grower Data” and “Plot Data” villages are represented by a village code. This village code uniquely identifies each village overcoming the problem of distinguishing villages with identical names.

Names of villages and further information on each village are stored in a separate table, which is related to other tables via the village code. In this table, to each village codes were assigned to identify:

- To which district the village belongs
- In which hydrological region and watershed the village is located
- If the village is part of a Government Irrigation Scheme and if yes of which one

## ANNEX 3-1

This enables to group villages and any results related to villages easily by District, Watershed etc.

To keep the database performance i.e. the calculation speed reasonable several measures were taken that are described in the following text.

The field sizes (storage volume) in all tables were reduced to the necessary minimum.

All fields in which few different entries appear repeatedly throughout the records were organized as “lookup fields”. Lookup fields allow the user to choose the desired entry from a list instead of typing it; this avoids typing errors. The list of possible entries to a lookup field is stored in a separate table. Regarding its field size a lookup field has the advantage that only the code that relates the lookup field to the table containing the eligible entries is stored. Thus the name of e.g. a crop-species or an irrigation characteristic is written only once in the table related to the lookup field and the code represents the particular crop-species or irrigation characteristic in the table containing the lookup field. As the mentioned code is usually a number with field size “Byte” the necessary storage volume is minimized.

All relationships between tables except one are realized in number format. The exception is the relation between the Plot Table and the corresponding Crop Tables that, as described above, is formed by a code assembled of Sheet No., Plan No. and Plot No., being in text format.



### 3 User Interface

A final user of the database should be able to work with the database without having to care much about e.g. the structure, relationships, criteria for queries etc. It was rather considered desirable to provide the user with a list of possible tasks from which to choose the task needed to be performed and to find simple menus that lead to the desired result.

On the basis of a User Interface the databank-user should be able to find a certain Grower via his identity number (ID-No.) or his Name as shown in Figure: 2. By changing the active tab from “Choose Grower” to “Grower Information”, personal information on the selected Grower can be viewed and edited (Figure: 3). By activating the tab “PlotsInfo” (Figure: 4) the first plot record for the selected Grower is shown. When the tab “PlotsInfo” becomes active, information on plantations on the specific plot simultaneously become accessible for viewing and editing via tabs for each crop (Figure: 5).

ID-No.	Name	Surname/Company
597681	Ανδρούλλα	Κούσουλου

Choose ID-No from List	Choose Grower from List
0	
1	
2	
3	
4	Ανδρούλλα Κούσουλου
5	Βασίλης Θ. Κούσουλου
6	Ανδρέας Κούσπαρου
7	Κώστας Κούσπας
8	Σαλώμη Κούσπας
9	Νίκος Κουταλιανός
10	Νικόλαος Ι. Κουταλιανός
11	Μαρία Κουταλιανού
12	Ιωάννης Κουτζής
13	Γιαννάκης Κουτογιάννης
14	Νίκος Γ. Κουτονικόλας
15	Λούκας Κουτού
16	Γεωργία Ανδρ. Κουτούδη
17	Μιχάλης Κουτούμπας
18	Ανδρέας Β. Κουτούννας
19	Μιχάηλ Κουτουρούσης
20	Μαρία Αδ. Κούτρα
21	Γεώργιος Β. Κούτρα
22	Αδάμος Β. Κούτρα
23	Γιαννάκης Π. Κούτρας
24	Γιάννης Α. Κούτρας
25	

Figure: 2 User Interface – View 1: Choosing the Grower either by ID-No. or by Surname

## ANNEX 3-1

Figure 3 User Interface – View 2: Personal Grower Information

Variety	Planted Area	Irrigation	No of Trees
	0,00		

Figure 4 User Interface – View 3: The plots owned by a specific Grower, whose ID-No. and Name are always visible on top of the page. Plot-Record 1 of 2 available Plot-Records for this Grower has been selected here.

# ANNEX 3-1

ID-No: 10000099 Name: Jack Surname/Company: Smith

Choose Grower | Grower Information | PlotsInfo

PlotName: 30/16E1No206 Sheet: 30 Plan: 16 PlanExt: E1 PlotNo: 206

PlotVillage: Deftera Location: Dry Corner StateOfOwnership: Ιδιοκτήτης

Almonds | Banana | Citrus | Deciduous | Potatoes | Vines

Species	Variety	Planted Area	No of Trees
Πορτοκάλια	Γιάφφα	2,4	42
Λεμόνια	Λαπήθου	1,8	31
		0	

Record: 1 of 2

Figure: 5 User Interface – View 4: Crop Information on Plot-Record 1 of 2. Grower ID and Name as well as information on the specific plot is always visible on top of the page

## ANNEX 3-1

### 4 Data

Input data for the databank was received in about 50 digital files. Those source files were either outputs from old but updated databases, which were established for the purpose of various financial schemes, or the result of recent data input work conducted especially for the purpose of the crop/grower database.

One file usually included information on one crop and the corresponding Growers for one district. Most of the files were in dBase format.

The dBase files were imported into MS Excel and modified according to the requirements of the crop/grower database structure i.e. the information was distributed among the three core tables (Figure: 1).

S/N	Fieldname	Field Datatype	Comments
1	ID-No	Number (Long Int)	Primary Key
2	Grower Name	Text (50)	
3	Grower Surname	Text (50)	
4	Spouse Name	Text (20)	
5	Address Street	Text (50)	
6	Address No	Number (Int)	
7	Postcode	Number (Int)	
8	Village	Text (50)	
9	District-Code	Number (Byte)	Lookup Field
10	Village Code	Number (Long Int)	
11	Home Phone	Number (Long Int)	
12	Work Phone	Number (Long Int)	
13	Mobile Phone	Number (Long Int)	
14	SIF-No	Number (Long Int)	
15	REF-ID	Number (Long Int)	
16	Main Job	Text (25)	
17	2 <sup>nd</sup> Job	Text (25)	

Table: 1 Fields, their Field Types and Sizes in the “Grower Data” table

## ANNEX 3-1

Special efforts were needed to obtain appropriate data quality in the village information, as the spelling of the village names had to be brought to one standard. This was necessary because the village names had to serve as the basis for applying the system of village codes mentioned in Section 2 to the “Grower Data” and “Plot Data” tables.

The following sections give an overview about the information available for each grower, plot and each crop within the crop/grower database:

### 4.1 Grower Information

In the “Grower Data” table of the crop/grower database all the information on one Grower is stored within one record, which is uniquely identified by the Grower’s identity number (ID-No.). The information included on each Grower, i.e. the fields in the “Grower Data” table are presented in Table: 1.

For each Grower contained in the crop/grower database basic personal information, as is his residence address, his telephone numbers etc. are stored. Thus the Grower Table itself represents an address-databank that significantly reduces the effort to approach a specific group of Growers i.e. address information for a group of Growers is selected by simply applying a certain criterion within a query and addresses on e.g. all Potato-Growers in the District of Ammochostos or all Growers cultivating vines which are irrigated etc. are easily retrieved.

### 4.2 Plot Information

The information available for each land property had to be organized in a way that provides compatibility with a future GIS. Therefore data on the sheet, plan and block on which the plot is located and its Plot Number had to be stored in separate fields to be accessible separately. In the source files this information was always stored together in one field so it was necessary to split those text strings. Furthermore information on the plot area and information on the state of the ownership i.e. if the plot is owned, rented etc., is available for each plot. A complete list of the Fields in the “Plot Data” table is given in Table: 2.

## ANNEX 3-1

S/N	Fieldname	Field Datatype	Comments
1	S/N	AutoNumber (LongInt)	
2	Location	Text (20)	
3	Block	Text (5)	
4	Sheet	Number (Byte)	
5	Plan	Number (Byte)	
6	Plan Extension	Text (2)	
7	Plot Number	Text (30)	
8	Joint Property	Yes/No	
9	Plot Name	Text (50)	Primary Key
10	Plot Area	Number (Double)	
11	ID-No	Number (LongInt)	Establishes the Relation to the "Grower Data" table
12	State of Ownership - Code	Number (Byte)	Lookup Field
13	VillCode-Tot	Number (LongInt)	

Table: 2 Fields, their Field Types and Sizes in the "Plot Data" table

### 4.3 Crop Information

The following crops are currently incorporated within the crop/grower Database:

- Almonds
- Banana
- Citrus
- Deciduous
- Greenhouses
- Fodders
- Olives
- Potatoes
- Vines
- Vegetables
- Tobacco

## ANNEX 3-1

Greenhouses and Fodders do only partly fulfill the requirements to be organized according to the crop/grower structure described in Section: 2. Therefore it was decided to organize information on them in separate small databases until complete information is available. The required results for those crops were obtained in their separate small databases and afterwards combined with the results for those crops yet included in the main crop/grower database.

Each Crop Table in the main crop/grower database contains fields that are standard for all Crop Tables and other fields that meet specific requirements of each crop. Typical Fields that appear in each Crop Table are shown in Table: 3.

S/N	Fieldname	Field Datatype	Comments
1	ID-No	Number (LongInt)	
2	Plot Name	Text (50)	Establishes the Relation to the "Plot Data" table
3	Species	Number (Byte)	Lookup Field
4	Variety	Number (Byte)	Lookup Field
5	Planted Area	Number (Double)	
6	Year Planted	Number (Int)	
7	Year Grafted	Number (Int)	
8	Number of Trees	Number (Int)	
9	Number of Producing Trees	Number (Int)	
10	Mean Yield	Number (Double)	
11	Registration Date	Date/Time	
12	Control	Text (5)	

Table: 3 Typical Fields, their Field Types and Sizes in the "Crop Data" tables

In the following sections further details are given for each crop on which information is available within the crop/grower database.

### 4.3.1 Almonds

Information available on almond plantations is by now limited to plantations in 14 villages in the Limassol district, covering the main areas of (irrigated) almond plantations. For each plantation information on whether it is irrigated, semi-irrigated or not

## ANNEX 3-1

irrigated is available. The variety of almonds planted on each plantation is given. Unfortunately, for 1584 of the 3409 plantations no information on the area of the plantation was provided in the source file.

### 4.3.2 *Banana*

Information on 610 banana plantations is contained in the database. Each plantation is identified by Sheet/Plan/Plot-Number and the planted area is available. For each plantation the variety of banana is given.

### 4.3.3 *Citrus*

Information on 16763 citrus plantations is included in the crop/grower database. For each plantation the planted species and variety as well as the number of trees is available. However, data on about 250 plantations is incomplete in terms of Sheet/Plan/Plot-Number information and for about 160 plantations no information on the planted area is provided i.e. those plantations do not contribute to the results obtained for the FAO project.

### 4.3.4 *Deciduous*

Information on 61713 deciduous plantations is included in the crop/grower database. For each plantation the planted species and variety as well as the number of trees is available. However, data on about 950 plantations is incomplete in terms of Sheet/Plan/Plot-Number and for about 2600 plantations no information on the planted area is provided i.e. those plantations do not contribute to the results obtained for the FAO project.

### 4.3.5 *Fodders*

Because by now no data for the Ammochostos district was received and because for the Lefkosia district the plantations are not identified by Sheet/Plan/Plot-Number information all the data on fodders is kept in a separate database (with similar structure as the crop/grower database) until now. As soon as data will be complete it will be imported into the main crop/grower database. Currently 675 fodder plantations are included in the database. Information on the planted species is available for about the half of the plantations.



#### 4.3.6 *Olives*

Information on Olives was the last data to enter the crop/grower database. Due to strict guidelines for the data input work the available information is very complete.

#### 4.3.7 *Greenhouses*

Information on greenhouses was available only per village and not per Sheet/Plan/Plot-Number. However, some relation to the Growers owning the greenhouses is existent. For this reason the greenhouses as well were organized in a separate database and the results afterwards combined with those from the main crop/grower database.

#### 4.3.8 *Potatoes*

Information on 13802 potato plantations is included in the crop/grower database. For 11940 of them information on the planted variety is provided. However, for 1287 of the plantations no area is available.

Data on potatoes show gaps in the districts of Ammochostos and Larnaca where the plantations are not identified by Sheet/Plan/Plot-Number information. It was decided to organize the data within the main crop/grower Database but not in the form presented in Section: 2. Instead, the plantations were directly related to the Grower Table via the Grower Identity (ID-No) and the results were obtained without employing the Plot Table. This procedure is justified by the fact that Cyprus' potato growers do in most cases have their plantations within their village of residence. Therefore the error resulting out of this necessary simplification is considered to be negligible.

#### 4.3.9 *Vines*

Information on 73183 vines plantations is contained in the crop/grower Database. The data does not show any gaps. For each plantation the Sheet/Plan/Plot-Number, the planted variety and information on whether the plantation is irrigated or not irrigated is given.

#### *4.3.10 Vegetables*

Information on vegetables was available in the form of areas per village and not per Sheet/Plan/Plot-Number. This information was included in the main crop/grower database. For the following vegetables areas per village are included in the database:

- Artichoke
- Beans/Louvia
- Beets
- Broad Beans - Peacan
- Cabbage
- Carrots
- Cucumbers
- Eggplant
- Leaf Vegetables
- Onions
- Potato
- Squash
- Tomato
- Water Melon

#### *4.3.11 Tobacco*

The information on Tobacco plantations refers to 10 villages in the Polis-Chrysochou region. The data is provided in the form of plantation area per grower, for whom his village of residence is given. Thus it was not possible to establish a crop/grower structure as shown in Figure: 1 but the information was included in the database to give planted areas per village as result.

## 5 Outputs

The “Assessment of Water Demand of Cyprus” carried out by Mr Loucas Savvides had to be based on exact information about the actual cropping pattern in Cyprus i.e. information on areas of irrigated plantations of the crops mentioned in Sections 4.3.1 to 4.3.11.

### 5.1 Outputs realized for the FAO Project

Within the frame of the FAO project it was decided to group the irrigated areas of each crop per village boundary via the village code. The villages were then grouped to give the following results:

- Irrigated Areas per Watershed
- Irrigated Areas outside of the Government Irrigation Schemes
- Irrigated Areas per Government Irrigation Scheme for the purpose of comparison with data on these areas received from other sources (Water Development Dpt.)

### 5.2 Further possible Outputs

Outside the scope of the FAO project the following outputs were realized:

- Irrigated Areas per District
- Irrigated Areas per Sheet and Plan

Besides the mentioned outputs numerous other outputs can be obtained from the databank if desired.

### 5.3 Compatibility of outputs with GIS

The outputs are compatible with a GIS system via various codes included in the databank, such as:

- The village code
- The Watershed code
- The Sheet and/or the Plan No.

The three codes mentioned above could be related to the village boundaries, the watershed boundaries or the Sheet/Plan Boundaries that are already existent in the GIS system of the Division of Hydrology.

In a final stage the Plot Name, consisting of lined up Sheet/Plan/Plot No., will be related to each Plot once the Land Registry Office-maps (LRO-maps) will exist in digital form.

ANNEX 3-1

**Ministry of Agriculture, Natural Resources and Environment  
of the Republic of Cyprus**

**Water Development Department**

**Food and Agriculture Organisation of the United Nations**

**Land and Water Development Division**

**TCP/CYP/8921**

**REASSESSMENT OF THE ISLAND'S WATER RESOURCES AND DEMAND**

**Objective 1 – Output 1.5.1**

**The Assessment of Water Demand of Cyprus**

## **ANNEX 3-2**

**Unit Crop Irrigation Water Demand**









**Ministry of Agriculture, Natural Resources and Environment  
of the Republic of Cyprus**

**Water Development Department**

**Food and Agriculture Organisation of the United Nations**

**Land and Water Development Division**

**TCP/CYP/8921**

**REASSESSMENT OF THE ISLAND'S WATER RESOURCES AND DEMAND**

**Objective 1 – Output 1.5.1**

**The Assessment of Water Demand of Cyprus**

## **ANNEXES 4-1 to 4-21**

**Details on Areas and Water Demand for Major Government Water Schemes**



## ANNEX 4-1

### PAFOS IRRIGATION PROJECT – AREAS AND WATER DEMAND

<b>Pafos Irrigation Project - Irrigated Crops/Water Demand</b>					
<b>Permanent Crops</b>	<b>Crop</b>	<b>Area Decars</b>	<b>Unit Irr. Demand-m3</b>	<b>Total W. Demand-m3</b>	<b>%</b>
	Citrus	9213	750	6909750	
	Deciduous	2230	750	1672500	
	Olives	862	460	396520	
	Table Grapes	2318	260	602680	
	Bananas	2841	1100	3125100	
	<b>Sub-Total</b>	<b>17464</b>		<b>12706550</b>	<b>55%</b>
<b>Greenhouses</b>		<b>808</b>	960	<b>775680</b>	<b>3%</b>
<b>Open Field Veg.</b>		<b>13500</b>	623	<b>8410500</b>	<b>37%</b>
<b>Fodders</b>		<b>867</b>	1300	<b>1127100</b>	<b>5%</b>
<b>GRAND TOTAL</b>		<b>31772</b>		<b>23019830</b>	<b>100%</b>
		<b>decars</b>		<b>m3/year</b>	

## ANNEX 4-2

### OPEN FIELD VEGETABLES – PAFOS IRRIGATION PROJECT

<b>Vegetables in Open Field for Pafos Area 1990-1999</b>							
	(Area in decars)						
<b>Year</b>	<b>Groundnuts</b>	<b>Beans</b>	<b>Potatoes</b>	<b>Onions</b>	<b>Melons</b>	<b>Var. Vegetab</b>	<b>TOTAL</b>
<b>1990</b>	6981	5056	5028	392	560	1707	<b>19724</b>
	35.4%	25.6%	25.5%	2.0%	2.8%	8.7%	100.0%
<b>1991</b>	1225	2636	3449	361	197	1184	<b>9052</b>
	13.5%	29.1%	38.1%	4.0%	2.2%	13.1%	100.0%
<b>1992</b>	3383	6047	4543	273	312	934	<b>15492</b>
	21.8%	39.0%	29.3%	1.8%	2.0%	6.0%	100.0%
<b>1993</b>	4387	4273	3101	385	256	1200	<b>13602</b>
	32.3%	31.4%	22.8%	2.8%	1.9%	8.8%	100.0%
<b>1994</b>	5196	4444	1711	206	126	1117	<b>12800</b>
	40.6%	34.7%	13.4%	1.6%	1.0%	8.7%	100.0%
<b>1995</b>	3436	3480	1695	173	90	1220	<b>10094</b>
	34.0%	34.5%	16.8%	1.7%	0.9%	12.1%	100.0%
<b>1996</b>	2572	5882	3063	165	309	1209	<b>13200</b>
	19.5%	44.6%	23.2%	1.3%	2.3%	9.2%	100.0%
<b>1997</b>	2435	1394	2377	140	181	1718	<b>8245</b>
	29.5%	16.9%	28.8%	1.7%	2.2%	20.8%	100.0%
<b>1998</b>	3954	208	2540	133	169	1230	<b>8234</b>
	48.0%	2.5%	30.8%	1.6%	2.1%	14.9%	100.0%
<b>1999</b>	4680	635	2387	196	172	1170	<b>9240</b>
	50.6%	6.9%	25.8%	2.1%	1.9%	12.7%	100.0%
<b>AVER</b>	<b>32.5%</b>	<b>26.5%</b>	<b>25.5%</b>	<b>2.1%</b>	<b>1.9%</b>	<b>11.5%</b>	<b>100.0%</b>
<b>S. Dev</b>	<b>12.0%</b>	<b>13.7%</b>	<b>7.1%</b>	<b>0.8%</b>	<b>0.6%</b>	<b>4.2%</b>	
<b>Water Demand m3/decarr</b>	700	750	450	600	600	500	
<b>Weighted Average m3/decarr</b>	228	199	115	12	12	57	<b>623</b>

### ANNEX 4-3

### GREENHOUSE VEGETABLES – PAFOS IRRIGATION PROJECT

Greenhouse Vegetables in the Pafos Irrigation Project								
(Area in decars)								
Year	Tomatoe	Cucumber	Eg-plant/Pep.	Squash	Strawberries	Melon	Beans	TOTAL
1995	315	211	56	9	4	44	38	677
1996	277	223	54	10	5	27	55	651
1997	276	204	47	15	6	22	47	617
1998	324	188	50	10	12	14	46	644
1999	341	139	38	9	17	22	66	632
2000	322	152	38	7	21	72	63	675
<b>AVER</b>	<b>309</b>	<b>186</b>	<b>47</b>	<b>10</b>	<b>11</b>	<b>34</b>	<b>53</b>	<b>649</b>
<b>%</b>	<b>47.6</b>	<b>28.7</b>	<b>7.2</b>	<b>1.5</b>	<b>1.7</b>	<b>5.2</b>	<b>8.1</b>	<b>100.0</b>
Water Demand m3/decar	1000	1000	1000	750	850	750	750	
Weghted Average m3/decar	476	287	72	11.25	14.45	39	61	<b>960</b>

ANNEX 4-4

CHRYSOCHOU/POMOS/AGIA MARINA PROJECTS – AREAS AND WATER DEMAND

<b>Chrysochou-Argaka-Pomos-Ag.Marina Projects - Irrigated Crops/Water Demand</b>									
Area in decars	Crop	Chrysochou/Argaka	Pomos	Ag. Marina	TOTAL	Unit Irr. Demand-m3	Total W. Demand-m3		%
Permanent Crops	Citrus/Avoc.	6197	959	447	7603	700	5322100		
	Deciduous	955	148	172	1275	700	892500		
	Olives	1095	95	114	1304	430	560720		
	Table Grapes	191	0	6	197	220	43340		
	Bananas	5	34	19	58	960	55680		
	<b>Sub-Total</b>	<b>8443</b>	<b>1236</b>	<b>758</b>	<b>10437</b>		<b>6874340</b>		<b>79</b>
Greenhouses									
	<b>Sub-Total</b>	<b>72</b>	<b>104</b>	<b>147</b>	<b>323</b>	<b>800</b>	<b>258400</b>		<b>3</b>
Open Field Veg.									
	<b>Sub-Total</b>	<b>3500</b>	<b>160</b>	<b>200</b>	<b>3860</b>	<b>361</b>	<b>1393460</b>		<b>16</b>
Fodders									
	<b>Sub-Total</b>	<b>124</b>	<b>5</b>	<b>0</b>	<b>129</b>	<b>1100</b>	<b>141900</b>		<b>2</b>
<b>GRAND TOTAL AREA(decars)</b>		<b>12139</b>	<b>1505</b>	<b>1105</b>	<b>14749</b>		<b>8668100</b>		<b>100</b>
					decars		m3/year		%

## ANNEX 4-5

### CHRYSOCHOU PROJECT – AREAS AND WATER DEMAND

<b>Chrysochou Irrigation Project - Irrigated Crops/Water Demand</b>					
<b>Permanent Crops</b>	<b>Crop</b>	<b>Area Decars</b>	<b>Unit Irr. Demand-m3</b>	<b>Total W. Demand-m3</b>	<b>%</b>
	Citrus/Avoc.	6197	700	4337900	
	Deciduous	955	700	668500	
	Olives	1095	430	470850	
	Table Grapes	191	220	42020	
	Bananas	5	960	4800	
	<b>Sub-Total</b>	<b>8443</b>		<b>5524070</b>	<b>79</b>
<b>Greenhouses</b>					
	<b>Sub-Total</b>	<b>72</b>	800	<b>57600</b>	<b>1</b>
<b>Open Field Veg.</b>					
	<b>Sub-Total</b>	<b>3500</b>	361	<b>1263500</b>	<b>18</b>
<b>Fodders</b>					
	<b>Sub-Total</b>	<b>124</b>	1100	<b>136400</b>	<b>2</b>
<b>GRAND TOTAL AREA</b>		<b>12139</b>		<b>6981570</b>	<b>100</b>
		decars		m3/year	

**ANNEX 4-6**

**AGIA MARINA PROJECT – AREAS AND WATER DEMAND**

<b>Agia Marina Irrigation Project - Irrigated Crops/Water Demand</b>					
<b>Permanent Crops</b>	<b>Crop</b>	<b>Area Decars</b>	<b>Unit Irr. Demand-m3</b>	<b>Total W. Demand-m3</b>	<b>%</b>
	Citrus/Avoc.	447	700	312900	
	Deciduous	172	700	120400	
	Olives	114	430	49020	
	Table Grapes	6	220	1320	
	Bananas	19	960	18240	
	<b>Sub-Total</b>	<b>758</b>		<b>501880</b>	<b>73</b>
<b>Greenhouses</b>					
	<b>Sub-Total</b>	<b>147</b>	800	<b>117600</b>	<b>17</b>
<b>Open Field Veg.</b>					
	<b>Sub-Total</b>	<b>200</b>	361	<b>72200</b>	<b>10</b>
<b>Fodders</b>					
	<b>Sub-Total</b>	<b>0</b>	1100	<b>0</b>	<b>0</b>
<b>GRAND TOTAL AREA</b>		<b>1105</b>		<b>691680</b>	<b>100</b>
		decars		m3/year	



ANNEX 4-7

CHRYSOCHOU, POMOS, AGIA MARINA PROJECTS – WATER AVAILABLE AND WATER USED

CHRYSOCHOU PROJECT	WATER AVAILABLE IN DAMS 1997 - 2000			Water Used from All Dams	Ground Water Pumped Through Government B/H	Ground Water Pumped Through Private B/H *	TOTAL WATER USED																															
	EVRETOY	ARGAKA	POMOS AG. MARINA																																			
YEAR	EVRETOY	ARGAKA	POMOS AG. MARINA	TOTAL	Government B/H	Private B/H *	TOTAL WATER USED																															
	m3	m3	m3	m3	m3	m3	m3																															
1997	5000000	990000	860000	73900	6923900	2506585	6327063																															
1998	4728230	990000	860000	150029	6728259	2410864	7638939																															
1999	9177283	990000	860000	212500	11239783	3822070	8135806																															
2000	6998700	990000	860000	210100	9058800	3361850	7779524																															
* These figures are the 75% of the estimated extraction by the WDD of the Polis Chrysochou people. It is based on the existing boreholes and the area irrigated by each borehole. There is an overlapping between the project covered by the dams and those areas receiving also water from private boreholes. A few boreholes are outside the project area.																																						
During the years 1997 - 2000 the crop water demand was partially satisfied as follows:																																						
<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">% of satisfaction</th> </tr> <tr> <th>1997</th> <th>1998</th> <th>1999 2000</th> </tr> </thead> <tbody> <tr> <td>Citrus</td> <td>50</td> <td>50</td> <td>75 60</td> </tr> <tr> <td>Deciduous</td> <td>25</td> <td>25</td> <td>60 40</td> </tr> <tr> <td>Table Grapes</td> <td>100</td> <td>50</td> <td>100 38</td> </tr> <tr> <td>Olives</td> <td>25</td> <td>25</td> <td>50 25</td> </tr> <tr> <td>Bananas</td> <td>50</td> <td>50</td> <td>75 25</td> </tr> <tr> <td>Greenhouses</td> <td>-</td> <td>50</td> <td>100 100</td> </tr> </tbody> </table>									% of satisfaction			1997	1998	1999 2000	Citrus	50	50	75 60	Deciduous	25	25	60 40	Table Grapes	100	50	100 38	Olives	25	25	50 25	Bananas	50	50	75 25	Greenhouses	-	50	100 100
	% of satisfaction																																					
	1997	1998	1999 2000																																			
Citrus	50	50	75 60																																			
Deciduous	25	25	60 40																																			
Table Grapes	100	50	100 38																																			
Olives	25	25	50 25																																			
Bananas	50	50	75 25																																			
Greenhouses	-	50	100 100																																			

## ANNEX 4-8

### CHRYSOCHOU PROJECT – WATER SOURCES

- Evretou dam
- Argaka dam
- Pomos dam
- Agia Marina dam
- Diversion Magundas to Evretou dam (through the main irr. line)
- Diversion Yialia to Evretou dam (not completed still)
- 5 boreholes in the Chrysochou valley ( between Prodhromi bridge and Chrysochou bridge)
- 2 boreholes in the Argaka ( abandoned due to sea intrusion)

#### WATER USED FROM THE DAMS AND DIVERSIONS (Excluding Groundwater)

<u>Year</u>	<u>Water used m3</u>
1993	3678035
1994	3972410
1995	4021560
1996	4552964
1997	2506585
1998	2410864
1999	3822070
2000	3361850

An additional quantity of about 4.2 million m3 was used from groundwater.

**ANNEX 4-9**

**OPEN FIELD VEGETABLES – CHRYSOCHOU PROJECTS**

<b>OPEN FIELD VEGETABLES - POLIS CHRYSOCHOU</b>						
	<b>(Area in Decars)</b>					
	<b>Tobacco</b>	<b>Groundnuts</b>	<b>Potato</b>	<b>Melons</b>	<b>Var. Vegetables</b>	<b>TOTAL</b>
<b>1997</b>	1130	725	871	0	2787	<b>5513</b>
<b>1998</b>	733	175	637	0	2857	<b>4402</b>
<b>1999</b>	725	95	599	512	3121	<b>10762</b>
<b>2000</b>	754	127	586	436	3807	<b>5710</b>
<b>AVER</b>	<b>836</b>	<b>281</b>	<b>673</b>	<b>237</b>	<b>3143</b>	<b>6597</b>
<b>%</b>	<b>12.7</b>	<b>4.3</b>	<b>10.2</b>	<b>3.6</b>	<b>47.6</b>	<b>100.0</b>
Water Demand m3/decar	550	500	250	450	480	
Weighted Average m3/decar	70	21	26	16	229	<b>361</b> m3/decar

**ANNEX 4-10**

**AKROTIRI WEST PROJECT – AREAS AND WATER DEMAND**

<b>Akrotiri West Irrigation Project - Irrigated Crops/Water Demand</b>					
<b>Permanent Crops</b>	<b>Crop</b>	<b>Area Decars</b>	<b>Unit Irr. Demand-m3</b>	<b>Total W. Demand-m3</b>	<b>%</b>
	Citrus	3100	700	2170000	
	Deciduous	840	700	588000	
	Olives	775	420	325500	
	Table Grapes	2158	260	561080	
	Bananas	0	0	0	
	<b>Sub-Total</b>	<b>6873</b>		<b>3644580</b>	<b>72</b>
<b>Greenhouses</b>					
	<b>Sub-Total</b>	<b>325</b>	<b>745</b>	<b>242125</b>	<b>5</b>
<b>Open Field Veg.</b>					
	<b>Sub-Total</b>	<b>2000</b>	<b>420</b>	<b>840000</b>	<b>17</b>
<b>Fodders</b>					
	<b>Sub-Total</b>	<b>321</b>	<b>1100</b>	<b>353100</b>	<b>7</b>
<b>GRAND TOTAL AREA</b>		<b>9519</b>		<b>5079805</b>	<b>100</b>
		<b>Decars</b>		<b>m3/year</b>	

## ANNEX 4-11

### WATER USED IN AKROTIRI WEST PROJECT 1992-2000

<b>WATER USED IN AKROTIRI WEST PROJECT</b>	
<b><u>Year</u></b>	<b><u>Water Used m3</u></b>
<b>1992</b>	<b>1384728</b>
<b>1993</b>	<b>2123764</b>
<b>1994</b>	<b>2614192</b>
<b>1995</b>	<b>3210602</b>
<b>1996</b>	<b>2979587</b>
<b>1997</b>	<b>1416638</b>
<b>1998</b>	<b>1277342</b>
<b>1999</b>	<b>2065468</b>
<b>2000</b>	<b>1754526</b>

ANNEX 4-12

OPEN FIELD VEGETABLES – AKROTIRI WEST PROJECT

OPEN FIELD VEGETABLES - AKROTIRI WEST PROJECT (Area in Decars)										
Year	Potato	Onion-Garl.	Beets	Beans	Tomato	Leaf Veg.	Melon	Egg Plant/Pep.	Other	TOTAL
1993	445	185	101	104	54	57	133	10	33	1122
1994	455	244	129	118	109	67	179	33	58	1392
1995	621	344	113	81	97	281	275	21	49	1882
1996	539	456	252	83	45	129	65	10	29	1608
1997	436	54	68	2	7	49	0	2	0	618
1998	500	15	55	0	0	22	0	0	0	592
1999	730	98	130	0	0	26	0	0	0	984
2000	710	76	132	0	0	26	0	9	0	953
<p>Due to the drought of the recent years ie. 1997-2000, we take the 1996, 1997 year as normal years for calculating the normal vegetable area and hence the water demand as shown below.</p>										
1995	621	344	113	81	97	281	275	21	49	1882
1996	539	456	252	83	45	129	65	10	29	1608
AVER	580	400	182.5	82	71	205	170	15.5	39	1745
%	33	23	10	5	4	12	10	1	2	100
W. Demand (m3/decarr)	250	450	250	550	550	700	600	550	600	
Weig. Aver. Demand (m3/decarr)	83	103	26	26	22	82	58	5	13	420

ANNEX 4-13

GREENHOUSE VEGETABLES - LEMESOS

Greenhouse Vegetables-Lemesos 1999 (Area in Decars)											
Village	Tomato	Cucumber	Strawberries	Beans	Eggplant/Pep.	Melon	TOTAL				
Zakaki											
Trachoni											
Asomatos	0.5	2.6					3.1				
Lemessos	2.3	11.8	0.8	4.8			19.7				
K. Polemidhia	7.8	12.1	9		5	0.5	34.4				
Akrotiri						8	8				
Pareklisia	66.5	6	0.7	9.5	0.8	2	85.5				
Pyrgos	24.9	10.1	34.2	5.5	1.3		41.8				
Ypsonas			8.7	2	3		13.7				
Kolossi	3.5		2				5.5				
Episkopi	3	0.6	13.5	2.5	1.5	2	23.1				
Kantou	2.6	3	1				6.6				
							0				
<b>TOTAL</b>	<b>111.1</b>	<b>46.2</b>	<b>35.7</b>	<b>24.3</b>	<b>11.6</b>	<b>12.5</b>	<b>241.4</b>				
<b>%</b>	<b>46.0</b>	<b>19.1</b>	<b>14.8</b>	<b>10.1</b>	<b>4.8</b>	<b>5.2</b>	<b>100.0</b>				
<b>Unit Water Demand (m3/decar)</b>	<b>800</b>	<b>800</b>	<b>650</b>	<b>600</b>	<b>800</b>	<b>550</b>					
<b>Weighted Average W. Demand (m3/Decar)</b>	368	153	96	60	38	28	<b>745</b>				

**ANNEX 4-14**

**YERMASOYIA PROJECT – AREAS AND WATER DEMAND**

<b>Irrigation Project Yermasoyia, Polemidhia - Irrigated Crops/Water Demand</b>					
<b>Permanent Crops</b>	<b>Crop</b>	<b>Area Decars</b>	<b>Unit Irr. Demand-m3</b>	<b>Total W. Demand-m3</b>	<b>%</b>
	Citrus	17804	750	13353000	
	Deciduous	413	750	309750	
	Olives	185	450	83250	
	Table Grapes	1619	290	469510	
	Bananas	0	0	0	
	<b>Sub-Total</b>	<b>20021</b>		<b>14215510</b>	<b>91</b>
<b>Greenhouses</b>					
	<b>Sub-Total</b>	<b>278</b>	950	<b>264100</b>	<b>2</b>
<b>Open Field Veg.</b>					
	<b>Sub-Total</b>	<b>1500</b>	650	<b>975000</b>	<b>6</b>
<b>Fodders</b>					
	<b>Sub-Total</b>	<b>80</b>	1300	<b>104000</b>	<b>1</b>
<b>GRAND TOTAL</b>		<b>21879</b>		<b>15558610</b>	<b>100</b>
		<b>Decars</b>		<b>m3/year</b>	



ANNEX 4-15

VASILIKOS-PENDASKINOS-MAZOTOS-KITI/PERVOLIA – AREAS AND WATER DEMAND

	Citrus			Permanent Crops				Annual Crops				TOTAL
	Deciduous	Olives	Grapes	Banana	Sub total	Fodders	Potatoes	Greenhouse	Open Field	Veg	Sub total	
<b>Vasilikos Project</b>												
Mari		52			52	237	23	7	125		391	443
Kalavassos	301	189	9		522		30	32	110		172	694
Tochni	107	249			357	41	1		15		57	414
Zygi	71	50	5		127	9	11	97	140		257	383
Psematismenos	105	522			635			2	55		57	692
Maroni	176	428			612	147	0	347	355		849	1,461
<b>Sub-total Area</b>	<b>761</b>	<b>1,488</b>	<b>15</b>	<b>0</b>	<b>2,305</b>	<b>434</b>	<b>65</b>	<b>484</b>	<b>800</b>		<b>1,782</b>	<b>4,087</b>
<b>Water Demand</b>	<b>561,784</b>	<b>31,817</b>	<b>4,297</b>	<b>0</b>	<b>1,284,304</b>	<b>560,033</b>	<b>25,925</b>	<b>480,600</b>	<b>587,500</b>		<b>1,654,058</b>	<b>2,938,362</b>
<b>Pendaskinos Project</b>												
K. Lefkara	1	16			17				30		30	47
P. Lefkara	194	90	76		461				30		30	491
Skarinou	182	211			405				80		80	485
Ag. Theodoros	1,651	721			2,408	86	87	78	333		584	2,992
Kofinou	55	47			109	150			100		250	359
<b>Sub-total Area</b>	<b>2,084</b>	<b>1,084</b>	<b>76</b>	<b>0</b>	<b>3,401</b>	<b>236</b>	<b>87</b>	<b>78</b>	<b>573</b>		<b>974</b>	<b>4,375</b>
<b>Water Demand</b>	<b>1,562,783</b>	<b>120,049</b>	<b>20,589</b>	<b>0</b>	<b>2,186,603</b>	<b>283,320</b>	<b>30,275</b>	<b>70,425</b>	<b>366,450</b>		<b>750,470</b>	<b>2,937,073</b>
<b>Alaminos -Mazotos</b>												
Alaminos	690	226			915	150		51	523		724	1,639
Mazotos	63	415	21		504	75	129	55	538		796	1,300
<b>Sub-total Area</b>	<b>752</b>	<b>640</b>	<b>21</b>	<b>0</b>	<b>1,419</b>	<b>225</b>	<b>129</b>	<b>105</b>	<b>1,061</b>		<b>1,519</b>	<b>2,938</b>
<b>Water Demand</b>	<b>564,195</b>	<b>275,434</b>	<b>5,351</b>	<b>0</b>	<b>848,521</b>	<b>269,640</b>	<b>45,063</b>	<b>94,500</b>	<b>689,650</b>		<b>1,098,653</b>	<b>1,947,374</b>
<b>Kiti- Pervolia</b>												
Tersefanou	5	230			236	80	9		140		229	465
Pervolia		81			81	180	39	17	1,100		1,336	1,417
Kiti	21	185			229	240	467	53	1,080		1,840	2,069
Meneou	712	116			828		3		280		283	1,111
Dromolaxia	7	64			71	343	84	16	590		1,033	1,104
Softiades		1			1						0	1
<b>Sub-total Area</b>	<b>745</b>	<b>678</b>	<b>0</b>	<b>0</b>	<b>1,446</b>	<b>843</b>	<b>602</b>	<b>86</b>	<b>3,190</b>		<b>4,721</b>	<b>6,167</b>
<b>Water Demand</b>	<b>596,232</b>	<b>19,387</b>	<b>321,204</b>	<b>0</b>	<b>936,822</b>	<b>1,095,640</b>	<b>270,675</b>	<b>86,300</b>	<b>2,392,500</b>		<b>3,845,115</b>	<b>4,781,937</b>
<b>GRAND TOTAL</b>												
<b>Area</b>	<b>4,343</b>	<b>225</b>	<b>112</b>	<b>0</b>	<b>8,571</b>	<b>1,738</b>	<b>881</b>	<b>753</b>	<b>5,624</b>		<b>8,996</b>	<b>17,567</b>
<b>Water Demand</b>	<b>3,284,994</b>	<b>174,795</b>	<b>30,237</b>	<b>0</b>	<b>5,256,250</b>	<b>2,208,633</b>	<b>371,938</b>	<b>731,825</b>	<b>4,036,100</b>		<b>7,348,496</b>	<b>12,604,746</b>

Areas are given in Decars  
Water Demand is given in m<sup>3</sup> per year

Note:

ANNEX 4-16

OPEN FIELD VEGETABLES – MAZOTOS/ALAMINOS/LARNACA AREA

Village	Tomatoe	Beans/Louv	Cucumber	W. Melon	Cabage	Onions	Artichoke	Leaf Veg	Br.Bean/Pea	Squash	Egg-plant/P	TOTAL
<b>Anafotia</b>	45	0	25	350	20	0	160	0	0	35	25	<b>660</b>
<b>Alaminos</b>	30	0	10	220	15	0	143	0	0	15	10	<b>443</b>
<b>Mazotos</b>	45	0	15	280	20	0	58	0	0	25	15	<b>458</b>
<b>Ag. Theodho</b>	140	0	5	50	5	0	53	0	0	0	0	<b>253</b>
<b>Pyrga</b>	0	0	25	0	25	0	0	0	0	0	0	<b>50</b>
<b>Kornos</b>	0	0	25	0	25	0	0	0	0	0	0	<b>50</b>
<b>Mosfiloti</b>	0	0	25	0	25	0	0	0	0	0	0	<b>50</b>
<b>TOTAL</b>	<b>260</b>	<b>0</b>	<b>130</b>	<b>900</b>	<b>135</b>	<b>0</b>	<b>414</b>	<b>0</b>	<b>0</b>	<b>75</b>	<b>50</b>	<b>1964</b>
<b>%</b>	<b>13</b>	<b>0</b>	<b>7</b>	<b>46</b>	<b>7</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>100</b>
<b>W. demand m3/decar</b>	700		700	550	550		800			450	700	
<b>Aver.demand m3/decar</b>	93		46	252	38		169			17	18	<b>632</b>

ANNEX 4-17

GREENHOUSE VEGETABLES IN LARNACA AREA

Greenhouse Vegetable-Larnaca										
	Tomato	Cucumber	Egg-plant/Pepper	Beans	Flowers	Melons	Squash	Strawberries	TOTAL	
<b>1996</b>	309	78	37	30	21	1	6	28	<b>510</b>	
<b>1997</b>	291	61	28	10	24	2	2	11	<b>429</b>	
<b>1999</b>	370	153	65	63	55	50	42	10	<b>808</b>	
<b>2000</b>	334	188	93	90	83	53	41	12	<b>894</b>	
	1304	480	223	193	183	106	91	61	2641	
<b>%</b>	<b>49</b>	<b>18</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>100</b>	
W. Demand m3/decar	950	950	950	700	700	700	700	800		
Average W. Dem. m3/decar	469	173	80	51	49	28	24	18	<b>892</b>	

**ANNEX 4-18**

**KOKKINOCHORIA PROJECT – AREAS AND WATER DEMAND**

<b><u>Kokkinochoria Irrigation Project - Irrigated Crops/Water Demand</u></b>					
<b>Permanent Crops</b>	<b>Crop</b>	<b>Area Decars</b>	<b>Unit Irr. Demand-m3</b>	<b>Total W. Demand-m3</b>	<b>%</b>
	Citrus	5330	750	3997500	
	Deciduous	222	750	166500	
	Olives	3645	450	1640250	
	Table Grapes	0			
	Bananas	0			
	<b>Sub-Total</b>	<b>9197</b>		<b>5804250</b>	<b>30</b>
<b>Greenhouses</b>					
	<b>Sub-Total</b>	<b>386</b>	860	<b>331960</b>	<b>2</b>
<b>Open Field Veg.</b>					
	Potatoes	<b>35457</b>	295	10459815	<b>54</b>
	Other Veg.	<b>3500</b>	736	2576000	<b>13</b>
	<b>Sub-Total</b>	<b>38957</b>		<b>13035815</b>	
<b>Fodders</b>					
	<b>Sub-Total</b>	<b>150</b>	1150	<b>172500</b>	<b>1</b>
<b>GRAND TOTAL AREA</b>		<b>48690</b>		<b>19344525</b>	<b>100</b>

**ANNEX 4-19-1**

**OPEN FIELD VEGETABLES – KOKKINOCHORIA**

<b>Open Field Vegetables for Famagusta Year 2000</b>				
	<u>Area decars</u>	<u>%</u>	<u>W. Demand m3/decar</u>	<u>Aver. Demand m3/decar</u>
<b>Tomatoes</b>	<b>1000</b>	<b>17.8</b>	<b>600</b>	<b>107</b>
<b>Water Melon</b>	<b>1700</b>	<b>30.2</b>	<b>450</b>	<b>136</b>
<b>Kolokasse</b>	<b>800</b>	<b>14.2</b>	<b>2040</b>	<b>290</b>
<b>Beans/Louvia</b>	<b>500</b>	<b>8.9</b>	<b>550</b>	<b>49</b>
<b>Squash</b>	<b>400</b>	<b>7.1</b>	<b>350</b>	<b>25</b>
<b>Leafy Vegetable</b>	<b>400</b>	<b>7.1</b>	<b>700</b>	<b>50</b>
<b>Cucumber</b>	<b>300</b>	<b>5.3</b>	<b>550</b>	<b>29</b>
<b>Carrots</b>	<b>300</b>	<b>5.3</b>	<b>440</b>	<b>23</b>
<b>Eggplant/Pepper</b>	<b>130</b>	<b>2.3</b>	<b>600</b>	<b>14</b>
<b>Strawberries</b>	<b>50</b>	<b>0.9</b>	<b>650</b>	<b>6</b>
<b>Flowers</b>	<b>40</b>	<b>0.7</b>	<b>950</b>	<b>7</b>
<b>TOTAL</b>	<b>5620</b>	<b>100.0</b>		<b>736</b>

ANNEX 4-19-2

POTATOES - KOKKINOCHORIA

Potatoes for Famagusta Year 2000				
	<u>Area decars</u>	<u>%</u>	W. Demand m3/decar	Aver. Demand m3/decar
Potatoe Spring	21000	70.0	250	175
Potatoe Autumn	9000	30.0	400	120
<b>TOTAL</b>	<b>30000</b>	<b>100.0</b>		<b>295</b>

**ANNEX 4-20**

Planted Areas and Annual Irrigation Water Demand by Crop per Village (excl. Government Irrigation Schemes)

ANNEX 4-20

Village Code	Village	PA Citrus	WD Citrus	PA Deciduous	WD Deciduous	PA Oil	WD Oil	PA Grapes	WD Grapes	PA Banana	WD Banana	PA Fodders	WD Fodders	PA Greenhouses	WD Greenhouses	PA Potatoes	WD Potatoes	PA Vegetables	WD Vegetables
3114	ACHERITOU	656	459,032	23	14,788	267	106,618									23	4,600		
4211	AGIA ANNA	28	19,418	10	7,027	60	22,334					62	68,200			1	250		
6221	AGIA MARINA (KELOKEDARON)	51	30,324			26	6,126	33	6,689										
1103	AGIA VARVARA	3	2,513					43	11,634			201	220,550			10	2,500	20	11,000
1240	AGIOI TRIMITHIAS	99	79,584									57	68,628			19	6,650		
4318	AGIOI VAVATSIAS	153	99,353			103	41,015												
5305	AGIOS AMVROSIOS			9	6,530														
6301	AGIOS DIMITRIANOS			5	3,120														
5340	AGIOS DIMITRIOS			118	76,692														
1010	AGIOS DOMETIOS MUNICIPALITY																		
1208	AGIOS EPIFANIOS	3	1,969	27	19,913											10	4,500		
1414	AGIOS EPIFANIOS (SOLEAS)	4	1,958													7	1,688		
5310	AGIOS GEORGIOS	21	11,746	40	24,579			95	25,678							4	600	7	3,150
6205	AGIOS GEORGIOS	175	140,288									23	30,225				6,500	1,740	957,000
1211	AGIOS IOANNIS	18	13,508	120	96,000														
5361	AGIOS KONSTANTINOS	27	17,394	117	82,052	4	1,480	95	25,675										
5316	AGIOS KONSTANTINOS	3	1,469	114	75,437			0	84										
6218	AGIOS NIKOLAOS			240	156,169			3	744										
1430	AGIOS NIKOLAOS (LEFKAS)	11	8,273					16	3,615										
5142	AGIOS PAVLOS	9	6,078	5	3,287			3	756										
1121	AGIOS SOZOMENOS	12	9,360																
1405	AGIOS THEODOROS	1	297	13	8,010														
1462	AGIOS THEODOROS	7	4,733	5	3,836	8	3,365												
5360	AGIOS THEODOROS	3	1,736	62	43,635			61	15,325										
5306	AGIOS THERAPON	23	12,837	94	65,924	95	27,239	1	271									17	7,650
5124	AGIOS TYCHON	5	3,510									6	7,800						
1013	AGIANGEIA MUNICIPALITY																		
5367	AGRIDIA	5	4,013	176	123,544	10	4,040	37	9,715										
5366	AGROS			364	255,042	9	3,480	29	7,802										
1360	AKAKI	671	536,904																
5137	AKAPNOU	37	24,109									84	100,440				476,245	5,400	3,510,000
6130	AKOURLSOS	3	1,669	7	4,858	4	1,520	2	502										
5225	ALEKTORA	361	288,520	5	4,219			1,847	554,128										
4125	ALETHRIKO			2	1,405	51	20,998											5	3,750
1308	ALITHINOU			11	7,399							113	135,996						
6220	AMARGETI	52	31,086	242	169,141	5	2,000	1	386										
4122	ANAFOTIA	53	39,863	85	50,904			126	25,284			14	14,000			6	1,500	14	6,300
1231	ANAGEIA	24	16,751	118	82,692	319	134,777	231	57,723			114	136,800	109	98,100	60	21,000	660	429,000
1222	ANALYONITAS	24	16,611	4	2,765														
6355	ANDROLIKOU																		
4127	ANGLISIDES	84	63,180	211	147,456	339	149,269	32	8,027			70	83,844	6	5,400	36	12,425	485	315,250
5226	ANOGYRA	55	43,864	10	8,858			73	21,829			12	15,600			8	3,600		
5107	APAFSIA	21	15,548	29	10,880	30	11,830												
1202	APLIKI							4	1,088										
5106	APSIU	13	9,848	33	8,430														
4010	ARADIPPOU MUNICIPALITY			14	10,016	1	240					671	738,166						
5141	ARAKAPAS	918	596,654	29	19,958														
1210	AREOUCI	3	2,010	5	4,144											13	3,250		
6517	ARMINOU	8	4,818	24	14,556														
6111	ARMOU	2	1,253	24	18,541	60	24,688											3	1,350
5322	ARSOUS	6	3,866	41	35,193														
5130	ASGATA	29	22,073	0	1,26	12	6,150									11	3,850	3	1,950
1301	ASKAS			23	14,058	17	4,420	6	1,121										
6231	ASPROGIA			25	19,808							60	69,115			1,083	324,825	2,550	1,530,000
1362	ASTROMERITIS	1,421	1,065,930																



ANNEX 4-20

Village Code	Village	PA Citrus	WD Citrus	PA Deciduous	WD Deciduous	PA Oil	WD Oil	PA Grapes	WD Grapes	PA Banana	WD Banana	PA Fodders	WD Fodders	PA Greenhouses	WD Greenhouses	PA Potatoes	WD Potatoes	PA Vegetables	WD Vegetables
4202	ATHENOU MUNICIPALITY						230					370	406,615			37	9,250		
4103	AVDELLERO	23	15,911				40					12	12,650						
1363	AVLONA	392	313,520				12												
6115	AXYLOU							20	5,920										
5368	CHANDRIA			9	6,230			2	532										
4304	CHOIROKOITIA	344	258,083	4	3,413	430	211,948											60	39,000
6114	CHOLETRIA	57	45,352	2	1,896			32	9,552			12	15,600						
6129	CHOULOU	30	18,000	53	31,728			215	43,029							60	15,000	130	58,500
1107	DALI MUNICIPALITY	517	361,914									765	863,720			41	10,313	390	214,500
4216	DELIKIPOS	6	4,515	11	8,566	18	8,287									25	8,575	270	175,500
1242	DENIA																		
5140	DIERONA	680	510,225	10	7,560														
5320	DORA	22	17,648	12	10,235			24	7,284										
5311	DOROS	21	11,787	61	41,431	78	21,123											7	3,150
6353	DROUSEIA			4	3,038	99	40,059												
6308	DRYMIOU																		
6303	DRYMIA							10	3,010										
5364	DYMES			4	3,232														
5338	EFTAGONEIA	857	566,764	1,096	767,433	3	1,000	3	694										
1011	EKONOMI	83	66,536	75	48,672			5	1,002							28	4,125		
6116	ELEDIO	44	35,296	24	20,600	21	10,063	3	803										
1228	EPISKOPEIO	20	14,783	5	4,168											15	3,625	150	82,500
6112	EPSKOPI	51	38,333	25	19,687	445	193,315	20	5,017							10	2,438	2,120	1,166,000
1230	ERGATES	69	51,765									13	10,560			57	7,410	40	12,000
1411	EVRYCHOU	58	25,988	102	61,104														
6223	FALEIA					3	280											800	520,000
1201	FARMAKAS					88	44,225												
5103	FASOULA	12	9,023	41	13,832	125	47,461	19	5,075										
6201	FASOULA	6	4,808			125	52,455					18	22,750						
1205	FIKARDOU			9	4,600														
6216	FILOUSA (KELOKEDARON)	1	804	22	13,332	45	16,044												
6315	FILOUSA(CHRYSOCHOUS)	5	3,906																
1412	FLASOU	67	30,150	28	16,758							12	9,600			84	10,855	270	81,000
5352	FOINI			24	15,430	4	1,504									20	2,600	24	7,200
1303	FTERIKOUDI			95	71,157	4	1,980	1	261									3	1,650
6306	FYTI	1	489	54	43,016														
1406	GALATA			140	91,176											5	565		
6224	GALTARIA	15	8,826	18	10,560											20	5,000	60	27,000
1423	GERAKIES			39	25,181														
5105	GERASA	36	20,031	2	990														
1024	GERI	8	6,608									533	693,355						
5321	GEROVASA			2	956														
1204	GOURRI			30	25,608	12	5,900	13	2,662										
6352	INEIA			2	1,505	53	14,191											150	97,500
1404	KAKOPETRIA			290	173,934											37	4,778		
1408	KALIANA	7	3,002	196	127,140														
6124	KALLEPEIA	25	17,577	190	132,720											25	8,750	75	48,750
5146	KALO CHORIO	53	34,736	129	90,638	90	31,348	32	7,943			8	9,900						
4210	KALON CHORIO							7	1,773									5	2,750
1207	KALON CHORION	8	5,614	3	2,520			5	1,338			47	51,700			15	3,750	220	121,000
1223	KAMBIA	15	11,543	12	9,952											17	4,250		
5343	KAMINARIA	4	1,728	123	80,136	47	15,725	12	2,778									300	195,000
1200	KAMPI			25	21,043	21	10,250	8	2,408							0	0	30	10,500
1427	KAMPOS	40	22,138	326	195,570			2	609										
1403	KANNAVIA							17	3,345							80	20,000	120	54,000
6302	KANNAVIOU	28	17,046	59	35,262											5	1,250		
1220	KAPEDES	7	5,018																
5110	KARILEO	49	27,000	70	46,168											1	150		
6132	KATHIKAS			12	8,379	17	3,230	23	5,853										
5354	KATO AMANTOS			263	157,707														
6350	KATO ARODES					4	1,445					47	51,700						
1233	KATO DEFTERA	284	198,639																

ANNEX 4-20

Village Code	Village	PA Citrus	WD Citrus	PA Deciduous	WD Deciduous	PA Oil	WD Oil	PA Grapes	WD Grapes	PA Banana	WD Banana	PA Fodders	WD Fodders	PA Greenhouses	WD Greenhouses	PA Potatoes	WD Potatoes	PA Vegetables	WD Vegetables
4312	KATO DRYS	2	1,755	17	14,221	47	23,335	35	11,203									5	2,250
5303	KATO RIVIDES	4	2,206	21	14,399											1	375		
1329	KATO KOUTRAFAS															2	438	130	71,500
1326	KATO MONI	3	1,869	1	1,005														
5362	KATO MYLOS			148	103,851	9	3,720	41	10,985										
5350	KATO PLATRES	3	1,469	137	96,079	11	4,020	6	1,535							2	300	10	4,500
1457	KATO PYRGOS	791	434,786	530	318,060	132	38,178												
1364	KAT OKOPIA	2,050	1,537,245	2	1,864														
1416	KAT YDATA	84	37,733	11	6,402							16	12,400			0	0	60	18,000
6213	KEDARES							9	1,739										
5136	KELLAKI	111	72,137	82	53,284							32	35,266			1	150		
4100	KELLIA											11	11,000					16	8,800
6210	KELOKEDARA	357	214,068	97	57,930			12	2,475										
6361	KINOUSA	15	10,458	51	35,553														
5323	KISSOUSA	3	1,763	3	1,763	18	7,030	1	271							63	22,050	610	396,500
4124	KIVSIL			9	6,559	134	57,333					96	105,600	3	2,700				
4126	KLAVDIA					94	34,528					1	1,100			30	7,563	90	49,500
1209	KLROU	15	11,265	46	36,432														
5134	KLONARI	15	9,997																
5331	KOILANI			87	61,239			5	1,264							6	900	7	3,150
6121	KOILI	4	2,576	62	43,274			52	13,044										
6225	KOLINEIA			169	101,484			2	375										
1243	KOKKINOTRIMITHIA	246	197,112																
6011	KONIA	43	31,965	2	1,466	32	13,611					89	107,952			72	25,200	500	325,000
1410	KORAKOU	7	3,371	16	10,251							8	10,400			22	2,795	120	36,000
5108	KORFI	3	1,474	23	9,037							18	14,000						
4215	KORNOS	25	18,563	41	32,777	166	70,833					50	54,450	10	8,000	42	10,375	50	27,500
1104	KOTSIA TIS	8	5,845													3	688		
5317	KOUKA							2	542										
3200	KOUKLIA	11	8,620																
6127	KOURDAKA			25	14,874			63	12,626										
6305	KRITOU MARITTOU			23	14,004			10	2,020										
6336	KRITOU TERA	117	85,658	57	45,968	41	15,525	5	1,505										
5369	KYPEROUINTA	7	3,885	1,436	1,005,040			0	104							20	2,925		
4314	LAGEIA	5	3,478	38	24,796	24	9,780												
1305	LAGUIDERA			2	1,427			5	1,172										
1021	LAKATAMEIA MUNICIPALITY	56	38,850	6	4,333							34	36,850			53	13,313	120	66,000
5212	LANIA	2	1,100	43	21,160			465	125,592									5	2,250
6228	LAPTHOU							1	288										
4000	LARWAKA MUNICIPALITY																		
6307	LASA			3	2,288			8	2,308			308	400,400			7	3,150		
1023	LATSIA MUNICIPALITY	9	7,592																
1203	LAZANNIA			37	31,579	7	3,250												
1000	LEFKOSIA MUNICIPALITY											230	299,000			100	44,775		
5345	LEMITHOU			49	31,765														
6128	LEMONA	60	36,294	94	56,106			104	20,872										
6125	LETYMPOU	49	34,167	150	105,203			11	2,749										
5109	LIMNATIS	149	81,934	46	21,033			7	1,987										
1415	LINO	68	30,560	6	3,612											6	780	110	33,000
1307	LIVADIA			30	21,142							141	155,100						
4011	LIVADIA					4	1,720												
5307	LOFOU	7	3,674	1	635			3	722										
5145	LOUVARAS	15	9,672	151	105,693														
6320	LYSOS	15	10,738	184	147,152	25	12,588												
1109	LYTHRODONTAS	37	28,080	122	97,208							99	108,900			60	15,063	65	35,750
5324	MALIA					3	890	444	119,838										
1208	MALCUNTA	1	998	2	1,608														
1344	MAMARI																		
6204	MAMONIA	456	364,448	22	18,360							14	17,550						
5328	MANDRIA			140	97,919			3	722										
6110	MARATHOUNTA	2	1,755	12	9,079	38	16,247	12	3,094			115	126,500			13	3,250	7	3,150
1224	MARKI																		

ANNEX 4-20

Village Code	Village	PA Citrus	WD Citrus	PA Deciduous	WD Deciduous	PA Oil	WD Oil	PA Grapes	WD Grapes	PA Banana	WD Banana	PA Fodders	WD Fodders	PA Greenhouses	WD Greenhouses	PA Potatoes	WD Potatoes	PA Vegetables	WD Vegetables
6203	MARONAS			9	7,387											83	20,750		11,000
1101	MATHIATIS	18	13,275	38	30,448			2	542									20	
5104	MATHIKOLONI	86	64,673	32	3,435														
4316	MELINI	169	109,805	19	12,542							3	3,600			207	72,275	1,000	650,000
1368	MENIKO	131	104,672									127	152,400					20	13,000
4128	MENOGIEA			2	188			11	2,676										
6024	MESA GHORIO	12	9,278	132	103,210	63	27,756	5	1,338										
6025	MESOGI	72	50,729	91	63,539	68	24,756	6	1,271										
6304	MILIA																		
1213	MITSERO	5	3,745	11	7,958							54	59,400			4	938		1,350
5314	MONAGRI	62	34,331	11	4,210	54	14,596											3	
5127	MONAGROULLI	155	116,483	73	62,228	406	194,590	2	634			116	139,200			15	5,250		
5128	MONI	172	128,880	9	6,793							54	70,200			4	600		3,600
5318	MONIATIS			100	69,805	21	7,731									54	13,500	50	27,500
4212	MOSFILOTI	7	4,676	72	27,159														
6202	MUSERE							9	2,809										
5120	MOUTAGAKA											7	9,100						
1421	MYLIKOURI	14	10,538	4	2,314			2	385										
6113	NALTA	68	54,296	6	4,769			108	32,509			13	16,900			30	13,500	20	15,000
1105	NISOU	140	97,734									217	238,700						
4317	ODOU	69	44,642	97	82,626			7	2,107										
5330	OMODOS			138	96,479	6	2,372	10	2,687									1	150
4315	ORA	155	100,874			245	84,646												
1327	OROUNTA	294	234,840	19	16,303														
5308	PACHNA	5	2,937	64	44,484	181	63,281	3	921			5	4,500			982	343,788	630	409,500
1461	PACHYAMMOS	28	19,115	2	1,638	40	17,304			1	1,560					19	2,850	32	14,400
1310	PALACHORI ORINS	2	1,040	302	256,338	55	27,410	5	1,387									350	227,500
1241	PALAIMETOCHO	207	165,376									14	16,800			245	85,575	1,100	715,000
5341	PALAIOMYLOS			157	102,305	2	683												
5100	PALODEIA	4	3,008	1	750			9	2,438										
6200	PANO ARCHIMANDRITA	13	10,704	29	24,242			22	6,622										
6351	PANO ARODES	12	8,309	13	3,800														
1232	PANO DEFTERA	163	113,890	84	58,730											7	1,668	4,100	2,255,000
5304	PANO KIVIDES	3	1,742																
1328	PANO KOJTRAFAS	469	351,428	84	67,304											10	2,925	120	72,000
6230	PANO PANAGIA			221	132,600											10	2,500	40	18,000
5351	PANO PLATRES			7	4,770														
1456	PANO PYRGOS	56	31,064	21	12,498			7	2,220										
1350	PANO ZODEIA	360	289,963									34	38,640						
5101	PARAMITHA	7	5,016	1	694														
5125	PAREKLISIA	577	432,885	43	32,074	244	104,509					14	17,550			21	9,450		
1420	PEDOULAS			83	54,258														
6360	PELATHOUSA											9	9,900						
5365	PELENDRI	1	369	1,126	788,403	13	5,450	6	1,629										
5126	PENTAKOMO			23	13,566							146	189,800						
6222	PENTALLIA	40	24,120	51	35,987	110	43,469												
1227	PERA	90	63,161																
1106	PERA GHORIO			60	41,846	13	3,720	4	975							3	750		
5327	PERA PEDI			15	12,304	181	86,372									19	4,750		
1361	PERISTERONA	3,619	2,714,213									18	20,125			1,202	360,675	4,700	2,820,000
1460	PIGENIA	35	24,004	47	33,096	7	2,924												
5227	PISSOURI			260	111,455			4,185	1,255,560			60	77,350			9	4,050	42	31,500
6126	PITARKOU			32	25,311			12	2,926										
5223	PLATANISKEIA			167	60,220	1	58												
1309	PLATANISTASA			0	22	22	9,810	11	2,676							5	1,125		
6123	POLEMI	5	3,745	348	243,558			16	4,013										
1226	POLITIKO	32	23,678	16	13,016													2	438
1304	POLYSTYPOS			4	2,713													13	1,735
1330	POTAMA	32	24,060	8	6,408														
1120	POTAMIA	364	254,954									13	14,375			89	26,550	950	570,000
5329	POTAMIOU			6	4,249			9	2,528			451	486,430						
5363	POTAMITISSA			345	241,486	52	20,600	14	3,854										

ANNEX 4-20

Village Code	Village	PA Citrus	WD Citrus	PA Deciduous	WD Deciduous	PA Oil	WD Oil	PA Grapes	WD Grapes	PA Banana	WD Banana	PA Fodders	WD Fodders	PA Greenhouses	WD Greenhouses	PA Potatoes	WD Potatoes	PA Vegetables	WD Vegetables
6215	PRATORI			89	53,568			3	519										
5133	PRASTIO (KELLAKIOU)	108	80,738	9	7,019														
5942	PRODRONIOS			389	253,062	0	140												
6300	PSATHI			96	57,402														
4213	PSEVDAS	27	19,061	21	14,551	108	41,660									41	10,125	5	2,750
1229	PSIMOLOFOU	130	91,175	19	13,489											3	688		
4104	PYLA	12	8,428													39	11,700		
3212	PYRGA					148	62,858												
4214	PYRGA	82	61,425	97	67,610	148	60,258									37	12,775	50	32,500
5129	PYRGOS	218	163,718	8	6,361	222	98,604	7	1,940							44	19,800		
6211	SALAMIOU	5	3,210	1	804			12	2,384										
5132	SANIDA	34	22,048	45	29,466	62	24,041												
1100	SIA	5	3,503																
5313	SILIKOU	3	1,397	67	33,812	40	14,824	80	21,492							21	5,125	20	11,000
1407	SINAORIOS	1	446	40	24,204											5	750	11	4,950
1417	SKOURIOTISSA	36	27,075													3	423		
5214	SOTIRA	25	16,075	11	6,873	373	145,097									3	750	20	11,000
5900	SOUJIZANAKIA			7	4,749	97	27,039									1	250		
6103	SOUSKIOU	43	34,408	23	19,176			55	16,455			14	18,200						
1400	SPILIA			1	825														
5102	SPITALI	22	16,793			35	13,246												
6227	STATOS-AGIOS FOTIOS			919	551,466			4	736							10	2,500	110	49,500
6206	STAIROKONOU	15	11,760					21	5,351										
6122	STROUMPI			715	500,419											20	7,000	80	52,000
1012	STROVOLOS MUNICIPALITY	72	57,464													9	3,938		
5144	SYKOPETRA	186	120,660	7	6,077														
6026	TALA	101	70,679	80	55,888	97	36,018	42	10,452	9	8,700					33	11,712		
1409	TEMVRIA	14	6,467	64	38,298							8	6,400			17	2,178		
6330	THELETRA	46	33,865	40	32,056	68	32,306	4	1,304										
6208	TRACHYPEDOULA	167	133,512									6	7,800						
5344	TREIS ELIES			165	107,523	28	8,876									4	520		
5315	TRIMIKLINI	133	92,771	44	16,307	66	17,800	66	17,800							6	900	13	5,850
6023	TRIMITHOUSA	91	66,474	111	89,056	77	37,968	11	3,211							15	5,250	135	67,750
6120	TSADA			163	114,072			8	2,090										
1426	TSAKISTRA	4	2,206	303	181,908			0	67										
1225	TSERI	31	21,770																
5131	VASA (KELLAKIOU)	42	31,238	13	11,093							77	84,436			6	1,375	15	8,250
5325	VASA (KOILANIOU)			13	8,778											1	350		
4319	VAVAT SINIA	11	8,378	19	15,130	219	98,131	3	679										
4313	VAVLIA	6	4,523	28	23,915	71	35,275												
4102	VOROKLINI					89	36,564					45	49,390						
5326	VOUNI	4	2,013	50	35,337	68	24,103	1	361									12	5,400
1452	XEROVOUNIOS					137	34,994												
5147	ZOPIGI	3	1,742	153	107,045			22	5,582										
	TOTAL	23,177	16,678,355	18,326	12,464,882	8,472	3,442,233	9,656	2,741,877	10	10,260	6,260	7,260,468	315	294,600	7,241	2,265,592	32,827	19,560,150

**Note:**  
 PA stands for "Planted Area"  
 WD stands for "Water Demand"  
 Planted Areas are given in Decars  
 Water Demand is given in m3

**ANNEX 4-21**

Animal Husbandry – Number of Animals and their Annual Water Demand by Animal Category per Village

## ANNEX 4-21

Village Code	Village	No. Cattle	WD Cattle	No. Pigs	WD Pigs	No. Sheep	WD Sheep	No. Goats	WD Goat	No. Sheep&Goats	WD_Sheep&Goats	No. Poultry	WD_Poultry
1000	Lefkosta	110	6,023			593	1,732	821	2,397	1,018	4,129	95,419	8,707
1012	Strovolos	428	23,433			282	823	310	905	543	1,729		
1013	Aglantzia	209	11,443			248	724	672	1,962	779	2,686		
1021	Lakattamia	103	5,639			1,998	5,834	1,623	4,739	2,741	10,573		
1023	Latsia					1,211	3,536	901	2,631	1,832	6,167	7,162	654
1024	Geri	2,040	111,890	1,771	9,696	2,411	7,040	3,573	10,433	4,575	17,473	536,898	48,992
1100	Sia	102	5,585	1,955	10,704	161	470	879	3,491	178	1,349		
1101	Malthiatis	87	4,763			319	931	695	2,029	387	2,961		
1102	ALAMBRA					16	47	91	266	17	312		
1103	Agia Varvara Nic	849	46,483	2,825	15,467							186,207	16,991
1104	Koitsiatis					853	2,491	2,212	6,459	2,291	8,950	21,724	1,982
1105	Nisou	1,045	57,214			760	2,219	575	1,679	681	3,898	68,276	6,230
1106	Pera Chorio					608	1,775	267	780		2,555		
1107	Delli	7,425	406,519	10,453	57,230	6,146	17,946	1,746	5,098	3,835	23,045	184,847	16,867
1108	Lympla	1,372	75,117			3,143	9,178	3,475	10,147	4,008	19,325	31,035	2,832
1109	Lythrodontias					58	169	1,130	3,300	211	3,469	37,241	3,398
1120	Potamia	1,543	84,479			858	2,505	458	1,337	1,003	3,843		
1200	Kampi							63	184		184		
1201	Fairmakas							250	730		730		
1202	Apiki							19	55		55	93,104	8,496
1206	Agios Epifanios Orin							320	934		934		
1207	Kato Chorio Orinis					9	26	523	1,527	101	1,553		
1208	Malounta	136	7,446					10	29		29		
1209	Klirou					118	345	789	2,304	165	2,648	192,414	17,558
1209	Klirou					118	345	789	2,304	165	2,648		
1210	Arediou	57	3,121	1,678	9,187	322	940	661	1,930	911	2,870	20,889	1,906
1211	Agios Ioannis Maloun					14	41	708	2,067	188	2,108		
1212	Agrokippa							9	26		26		
1213	Milsero					43	126	230	672		797		
1220	Kapedes	64	3,504					1,055	3,081		3,081	69,828	6,372
1222	Analyontas							105	307		307		
1223	Kambia							243	710		710		
1224	Marki	513	28,087	11,132	60,948	252	736	1,148	3,352	420	4,088	207,000	18,889
1225	Tseri	665	36,409			2,745	8,015	2,519	7,355	3,162	15,371	1,927,723	175,905
1226	Politiko	120	6,570			104	304	1,312	3,831	350	4,135		
1227	Pera					222	648	1,227	3,583	478	4,231		
1228	Episkopio							176	514		514		
1229	Psimolofou	225	12,319	7,337	40,170	338	987	133	388	271	1,375	2,865	261
1230	Ergates	134	7,337			276	806	322	940	396	1,746		
1231	Anagia					9	26	25	73		99		
1232	Pano Deffera					602	1,758	1,215	3,548	1,295	5,306		
1233	Kato Deffera											9,967	909
1240	Agioi Trifithias	298	16,316	1,532	8,388	76	222	1,616	4,719	253	4,941	105,685	9,644
1241	Paliometochi	337	18,451	6,524	35,719	493	1,440	1,927	5,627	2,006	7,066		
1242	Denia					515	1,504	75	219	1,723	10,862		991
1243	Kokkinotrimithia			34,316	187,880	1,073	3,133	2,118	6,185	2,156	9,318	6,154,563	561,604
1244	Mammarl					53	155	285	832	139	987		
1301	Askas							11	32		32	11,841	1,080
1303	Fierikoudi							256	748		748		
1308	Alithinou							12	35		35		
1309	Platanistasa							18	53		53		
1310	Palechori Orinis			298	1,632	10	29	179	523	100	552		
1320	Xyliatos							164	479		479		
1321	Agios Georgios Kaifka											62,069	5,664
1322	Niktari					88	257	676	1,974	26	2,231		
1323	Vyzakia					4	12	217	634	8	645		
1324	Agia Marina Xyliatou			1,270	6,953	234	683	749	2,187	922	2,870	4,894	447

## ANNEX 4-21

Village Code	Village	No. Cattle	WD Cattle	No. Pigs	WD Pigs	No. Sheep	WD Sheep	No. Goats	WD Goat	No. Sheep&Goats	WD Sheep&Goats	No. Poultry	WD Poultry
1326	Kato Moni			43,754	239,553			6	18		18		
1327	Orounta			64,208	351,539	327	965	265	774	415	1,729		
1328	Pano Koutrafas			7,139	39,086	413	1,206	45	131	200	1,337		
1330	Potami	108	5,913			396	1,156	441	1,288	388	2,444		
1360	Akaki	802	43,910	18,882	103,379	2,918	8,521	1,180	3,446	2,361	11,966	98,069	8,949
1362	Astromeritis	162	8,870			903	2,637	453	1,323	928	3,960		
1368	Menoliko	92	5,037	22,160	121,326	337	984	1,075	3,139	460	4,123		
1400	Spilia			33	181			60	175		175		
1402	Agia Irini							23	67		67		
1403	Kanavia							41	120		120		
1405	Agios Theodoros Sole							34	99		99		
1409	Tempria			471	2,579	16	47	174	508	133	555		
1410	Korakou					92	269	529	1,545	185	1,813		
1411	Vrixou					262	765	1,358	3,965	767	4,730		
1412	Fiasou	15	821	1,769	9,685	780	2,278	205	599	648	2,876		
1414	Agios Epifanios Leik							231	675		675		
1416	Katydata					80	234				234		
1423	Ikos							47	137		137		
1424	Kalopanagiotis							7	20		20		
1426	Tsakistra							9	26		26		
1427	Kampos					40	117	4	12	44	128		
1456	Pano Pyrgos					80	234	264	771	344	1,004	19,862	1,812
1457	Kato Pyrgos					53	155	1,441	4,208	1,501	4,362		
1460	Pigenia					20	58	2,685	7,840	2,713	7,899		
1461	Pechiammos							211	616		616		
3100	Agia Napa					120	350	193	564	331	914		
3101	Paralimni					1,243	3,630	318	929	1,594	4,558	525,916	47,990
3102	Derynia	270	14,783			944	2,756	281	821	1,225	3,577	76,870	7,014
3103	Sotira Ammoxostou	139	7,610			2,365	6,906	3,691	10,778	9,114	17,684		
3104	Lipefiri	14	767	69	378	1,449	4,231	824	2,406	2,368	6,637		
3105	Frenaros					3,676	10,734	574	1,676	4,647	12,410		
3110	Avgorou	895	49,001	3,058	16,743	3,557	10,386	1,271	3,711	5,070	14,098	74,483	6,797
3111	Achna	2,720	148,920	3,645	19,956	2,489	7,268	632	1,845	3,127	9,113		
3114	Acheritou	322	17,630	2,045	11,196	2,130	6,220	1,128	3,294	3,250	9,513		
3212	Pyrga					558	1,629	1,162	3,393	3,440	5,022		
4000	Larnaka					453	1,323	416	1,215	842	2,537		
4010	Aradipou	6,526	357,299	65,351	357,797	7,011	20,472	2,840	8,293	9,789	28,765		
4011	Livadia Lamakas	271	14,837	1,814	9,932	1,051	3,069	866	2,529	1,917	5,598	58,345	5,324
4012	Dromolaxia	1,775	97,181			5,498	16,054	2,237	6,532	7,416	22,586	424,326	38,720
4013	Menou	195	10,676			180	528	93	272	273	797	62,069	5,664
4100	Kellia	179	9,800			1,387	4,050	717	2,094	2,104	6,144	3,581	327
4101	Troulloi	937	51,301			1,097	3,203	783	2,286	1,960	5,490		
4102	Voroklino	386	21,134			345	1,007	78	228	423	1,235	68,276	6,230
4103	Avdellero	199	10,895			1,383	4,038	248	724	1,533	4,763	682,760	62,302
4104	Pyla	3,500	191,625	6,128	33,551	2,908	8,491	920	2,686	3,772	11,178	456,924	41,694
4105	Xiolympou	301	16,480			3,900	11,388	1,829	5,341	5,710	16,729		
4106	Ormidia					5,361	15,654	1,635	4,774	7,004	20,428	125,929	11,491
4107	Xylofagou					2,247	6,561	511	1,492	2,654	8,053		
4110	Kiti	690	37,778			182	531	185	540	309	1,072		
4111	Pervolia	430	23,543	19,516	106,850	776	2,266	464	1,355	1,240	3,621	40,345	3,681
4112	Tersefanou					2,379	6,947	335	978	2,854	7,925		
4120	Mazotos					338	987	265	774	728	1,761		
4121	Alaminos					1,274	3,720	568	1,629	1,828	5,379		
4122	Anafotia	626	34,274			2,263	6,608	1,188	3,469	3,329	10,077		
4124	Kivisili	276	15,111			2,294	6,698	288	841	2,432	7,559	227,829	20,789
4125	Alethriko	220	12,045			3,287	9,598	1,653	4,827	4,817	14,425	151,449	13,820
4126	Klavdia	395	21,626			1,041	3,040	679	1,983	1,668	5,022	125,350	11,441
4127	Agglisides	334	18,287			340	993	390	1,139	684	2,132		
4128	Menogia												

## ANNEX 4-21

Village Code	Village	No Cattle	WD Cattle	No Pigs	WD Pigs	No Sheep	WD Sheep	No Goats	WD Goat	No Sheep&Goats	WD Sheep&Goats	No Poultry	WD Poultry
4202	Athienou	7,358	402,851	10,544	57,728	4,451	12,997	1,865	4,862	6,144	17,859	124,138	11,328
4210	KALO CHORIO	393	21,517			4,900	14,308	2,196	6,412	7,326	20,720	10,504	958
4211	Agia Anna	121	6,625			19	55	316	923	316	978		
4212	Mosfiloti			60	329	42	123	851	2,485	880	2,608	20,268	1,849
4213	Psevdas	92	5,037			487	1,422	1,158	3,381	1,626	4,803		
4215	Kornos			210	1,150	239	698	831	2,427	989	3,124	568,622	50,974
4216	Delikipos			9		9	26	521	1,521	530	1,548		
4300	Zygi	244	13,359			194	566	507	1,480	485	2,047		
4301	Marl	570	31,208			1,427	4,167	1,281	3,741	2,720	7,907		
4302	Kalavassos			310		905	905	281	821	576	1,726		
4303	Tochimi	281	15,385			90	263	749	2,167	951	2,450		
4304	Chiroklia			645		1,883	1,883	1,596	4,660	2,241	6,544		
4306	Maroni			10,171		737	2,152	1,134	3,311	1,134	6,483		15,009
4307	Agios Theodoros Lam			691		3,531	10,311	892	2,605	4,793	12,915		
4308	Skarinou			461		1,346	1,346	189	552	660	1,898		
4309	Kofinou			4,967		14,504	14,504	5,670	16,556	10,513	31,060		
4311	Pano Lefkara	116	6,351			384	1,121	155	453	539	1,574		
4312	Kato Drys			75		219	273	273	797	348	1,016		
4315	Ora			128		374	374	255	745	270	1,118		218
4316	Melini			105		307	307	25	73	105	380		
4317	Odou			100		292	292	100	292	292	64		
4318	Agioi Vavatsinias			22		64	64	22	64	64	164,483		
4319	Vavatsinia			349		1,019	1,019	349	1,019	349	1,019		
5000	Lemesos			111		324	324	375	1,095	184	1,419		
5011	Mesa Gitionia			286		1,566	1,566						
5012	Agios Athanasios			436		1,273	1,273	399	1,165	510	2,438		
5013	Germasogia			145		423	423	251	733	209	1,156		
5021	Ypsonas			736		2,149	2,149	1,351	3,945	1,689	6,094		
5022	Kato Polemidia	857	46,921	1,582	8,661	2,825	8,249	5,190	15,155	5,424	23,404	995,588	90,847
5100	Palodia			42		123	123	121	353	121	476		
5101	Paramythia			2,646		164	479	789	2,304	601	2,783		
5102	Spiaili					62	181	62	181	181	181		
5104	Mathikoloni			165		482	482	198	578	125	1,060		
5105	Gerasa			79		231	231	95	277	95	277		
5106	Apsiou			84		245	245	255	745	339	990		
5107	Apestia			10		29	29	572	1,670	73	1,699		
5108	Korfi			68		199	199	774	2,260	378	2,459		
5109	Limnatis			247		721	721	140	721	140	721		
5120	Moutagiaka			498		1,454	1,454	704	2,056	859	3,510		2,605
5121	Armenochori			805		2,351	2,351	925	2,701	1,730	5,052		
5122	Phinikaria			25		73	73	773	2,257	444	2,330		
5123	Akrounda			62		181	181	677	1,977	341	2,158		
5124	Agios Tychonas			20		58	58	284	829	62	888		
5125	Pareklisia	458	25,076	2,377	13,014	456	1,332	1,280	3,738	1,055	5,069	62,069	5,664
5126	Pentakomo			260		759	759	305	891	256	1,650		
5127	Monagrouli			22,670	124,118	124	362	330	964	50	1,326	496,553	45,310
5128	Moni			262		765	765	227	663	447	1,428		762
5129	Pyrgos			1,531	8,382	223	651	469	1,369	525	2,021		
5130	Asgata					29	85	29	85	85	85		
5131	Vasa Kellikou			105		36	105	36	105	15	105		
5132	Sanida			45		131	131	45	131	131	131		
5133	Prastion Kellikou			61		178	178	61	178	178	178	6,207	566
5134	Klonari			59		172	172	59	172	172	172		
5136	Kellaki Lemesou			34		99	99	34	99	99	99		
5138	Eftagonia			136		397	397	136	397	397	397		
5140	Dierona			241		704	704	241	704	704	704		
5141	Arakapas			368		1,045	1,045	368	1,045	1,045	1,045		
5142	Agios Pavlos			59		172	172	59	172	172	172		
5143	Agios Konstantinos			51		149	149	51	149	149	149		



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Village Code	Village	No. Cattle	WD Cattle	No. Pigs	WD Pigs	No. Sheep	WD Sheep	No. Goats	WD Goat	No. Sheep&Goats	WD Sheep&Goats	No. Poultry	WD Poultry
5144	Sykopetra					15	44	171	499	71	499	499	
5145	Louvaras					4	12	93	272	54	283	283	
5146	Kato Chorio Lemesou												
5147	Zoopigi					120	350	1,113	3,250	213	3,600	3,600	
5200	Akroliri							7	20	7	20	20	
5201	Asomatos							11	32		32		
5202	Tserkezi					325	949	698	2,038	495	2,987	2,987	
5203	Trachoni					2,644	7,720	3,910	11,417	2,653	19,138	19,138	403
5210	Kioloasi	149	8,158	1,376	7,534	613	1,790	813	1,191	1,191	4,164	4,164	
5211	Erimi	56	3,066			769	2,245	966	2,821	1,079	5,066		
5213	Karitou	140	7,665			1,234	3,603	1,629	4,757	878	8,360		
5220	Prastion Avdimou					2,136	6,237	1,532	4,473	2,260	10,711		
5221	Paramali	426	23,324			2,039	5,954	2,743	8,010	2,090	13,963	20,793	1,897
5222	Avdimou	1,169	64,003			227	663	1,156	3,376	1,032	4,038		
5223	Plataniskia					262	765	780	2,278	735	3,043		
5224	Agios Thomas					1,121	3,273	5,039	14,714	4,336	17,987		
5225	Alektora					589	1,720	4,398	12,842	1,953	14,562		
5226	Anogyra			9	49	2,713	7,922	7,731	22,575	5,703	30,496		
5227	Pissouri					562	1,641	1,304	3,808	1,308	5,449		
5300	Souni Zanatsia					55	161	1,070	3,124	658	3,285		
5302	Alassa					259	756	2,472	7,218	732	7,975		
5303	Kato Kivides					182	473	1,694	4,946	1,370	5,420		
5305	Agios Amvrosios					166	485	1,261	3,652	529	4,167		
5306	Agios Therapon					30	88	991	2,894	735	2,981		
5307	Lofou					608	1,775	6,514	19,021	2,832	20,796		
5308	Pachina			218	1,194	157	458	290	847	447	1,305		
5310	Agios Georgios Lemes					30	88	29	85	30	172		
5311	Doros					4	12	26	76	30	88		
5312	Lania					32	93	137	400	169	493		
5313	Sylkou							40	117		117		
5315	Trimiklino							65	190		190		
5316	Agios Mamas					747	2,181	7,109	20,758	3,782	22,940		
5318	Montiatis							310	905	200	905		
5320	Dora					26	76	1,741	5,084	1,035	5,084		
5322	Arsos Lemesou					427	1,247	260	1,247	260	1,247		
5323	Kisoussa					10	29	10	29		29		
5324	Maia					57	166	10	29	67	196		
5325	Vasa Kilaniou					1,465	4,278	690	2,015	4,262	6,293		
5326	Vouni					10	29	24	70	10	99		
5327	Pera Pedi					65	190	65	190	130	380		
5328	Mandria Lemesou					113	330	212	619	245	949		
5329	Potamou					32	93	96	280		280		
5330	Onodos					93	272	10	29	108	365		
5331	Kilani							343	1,002		1,002		
5350	Kato Platres							25	73		73		
5352	Fini					18	53	468	1,367	76	1,367		
5360	Agios Theodoros Lem							181	529		529		
5361	Agios Ioannis Agrou					5	15	5	15		15		
5362	Kato Mylos					11	32	11	32		32		
5363	Potamittissa												
5365	Pelendri												
5366	Agros												
5367	Agirdia												
5368	Chandria												
6000	Pafos											31,035	2,832
6010	Geroskipou			7	38	73	213	302	882	350	1,095		
6011	Konia					550	1,606	193	564	743	2,170		
6012	Agia Marinouda							176	514	176	514		2,690
6013	Koloni			40	219	22	64	95	277	117	342		

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Village Code	Village	No. Cattle	WD Cattle	No. Pigs	WD Pigs	No. Sheep	WD Sheep	No. Goats	WD Goat	No. Sheep&Goats	WD Sheep&Goats	No. Poultry	WD Poultry
6014	Achelia					338	987	824	2,406	1,162	3,393		
6020	Chlorakas							16	47		47		
6021	Lempa					323	943	205	599	528	1,542		
6022	Empa			82	449	11	32	58	169	69	201		
6023	Trimithousa					73	213	247	721	313	934		
6024	Mesa Chorion			52	285	47	137	214	625	261	762		
6025	Mesogi			60	329	103	301	73	213	176	514		
6026	Tala			50	274	24	70	357	1,042	362	1,113		
6027	Kissonerga	2	110			78	228	41	120	92	347		
6100	Koukila Pafou					2,152	6,284	2,475	7,227	8,292	13,511		
6102	Nikokilia					134	391	1,643	4,798	1,777	5,189		
6103	Souskiou												
6104	Timi					1,903	5,557	1,693	4,944	3,596	10,500		
6106	Agia Vanvara Pafou					815	2,380	1,410	4,117	1,664	6,497		
6107	Ararita	453	24,802			819	2,391	4,094	11,954	4,856	14,346		
6110	Marathounda			9,241	50,594	392	1,145	789	2,304	1,187	3,449		
6111	Armou					180	526	298	870	478	1,396		
6112	Episkopi Pafou	217	11,881	82	449	3,378	9,864	2,054	5,998	6,748	15,861		
6113	Neta					809	2,362	1,914	5,589	2,693	7,951		
6114	Choleftia					1,791	5,230	2,966	8,661	4,747	13,890		
6115	Axylou							930	2,716	930	2,716		
6120	Isada							251	733	173	733		
6121	Kili					98	286	749	2,187	841	2,473		
6122	Stroumpi					80	234	407	1,188	487	1,422		
6123	Polemi							78	228	67	228		
6124	Kalepia					43	126	1,007	2,940	1,051	3,066		
6125	Leympou					150	438	376	1,098	557	1,536		
6128	Lemona							122	356	117	356		
6129	Choulou					58	169	914	2,669	982	2,838		
6130	Akoursos					95	277	2,285	6,672	2,380	6,950		
6132	Kathikas							138	403	138	403		
6133	Pegla					1,981	5,785	6,086	17,771	7,940	23,596		
6200	Archimandrita					116	339	2,427	7,087	2,543	7,426		
6201	Fasoula Pafou					972	2,838	1,503	4,389	3,760	7,227		
6204	Mamonia							687	2,006	687	2,006		
6205	Agios Georgios Kelok					567	1,656	4,411	12,880	4,978	14,536		
6206	Stavrokou					169	493	404	1,180	430	1,673		
6208	Trachypedoula					652	1,904	1,009	2,946	1,377	4,850		
6210	Kelokedara					1,290	3,767	4,453	13,003	5,377	16,770		
6211	Salamlou					574	1,676	763	2,228	1,343	3,904		
6212	Kidaasi							370	1,080	370	1,080		
6214	Mesana					52	152	15	44	67	196		
6215	Pretori					32	93	45	131	77	225		
6216	Floussa Kelokedaron					32	93			32	93		
6217	Arminou							11	32	11	32		
6218	Agios Nikolaos Pafou					340	993	135	394	475	1,387		
6220	Amargeli					402	1,174	564	1,647	979	2,821		
6221	Agia Marina Kelok							67	196	67	196		
6222	Pentalia					150	438	951	2,777	1,129	3,215		
6224	Galataria					2	6	319	931	321	937		
6225	Kilinia					13	38	2,440	7,125	2,453	7,163		
6227	Statos Agios Fotios					1	3	1,552	4,532	1,691	4,535		
6230	Pano Panagia							120	350	132	350		
6231	Asprogia					6	18	495	1,445	557	1,463		
6300	Psathi					250	730	17	50	267	780		
6301	Agios Demetrios	12	657			48	140	534	1,559	562	1,699		
6302	Kannaviou					52	152	680	1,986	771	2,137		
6303	Drynia							19	55	19	55		

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Village Code	Village	No. Cattle	WD Cattle	No. Pigs	WD Pigs	No. Sheep	WD Sheep	No. Goats	WD Goat	No. Sheep&Goats	WD Sheep&Goats	No. Poultry	WD Poultry
6304	Milia Patou					70	204	303	885	257	750		
6305	Kritou Marottou					361	1,054	288	783	629	1,837	62,069	5,664
6306	Fyti							152	444	109	318		
6307	Lasa					801	2,339	1,553	4,535	2,276	6,874		
6308	Drymou	5	274					75	219				
6310	Sirmou	4	219			35	102	3	9	38	111		
6315	Floussa Chrysochous							546	1,594	546	1,594		
6318	Meleidia					2,065	6,030	2,313	6,754	5,027	12,784	45,000	4,106
6320	Lysos							136	397	136	397		
6321	Peristerona Chrysoch	124	6,789	6,309	34,542			396	1,156	640	1,848		
6330	Thelera					237	692	16	47	16	47		
6331	Gioliou							188	549	199	581		
6333	Milioi					11	32	105	307	105	307		
6334	Kato Akourdalia							63	184	104	327		
6336	Kritou Terra					49	143	219	639	251	733		
6337	Skoulli					32	93	45	131	905	2,643		
6338	Choli	86	4,709			860	2,511	1,154	3,370	2,041	5,986		
6341	Chrysochou					896	2,616	1,999	5,837	2,434	7,201		
6343	Polis					467	1,364	6	18	6	18		
6344	Neo Chorio							347	1,013	424	1,238		
6345	Goudi							4,063	11,864	6,169	17,999		
6351	Pano Arodes					77	225	6,343	18,522	8,367	22,271		
6352	Inia					2,101	6,135	1,007	2,940	1,379	4,027		
6353	Drousia					1,284	3,749	617	1,802	903	1,831		
6355	ANDROLIKOU					372	1,086	13	38	13	38	29,793	2,719
6360	Pelathousa					10	29	34	99	52	152		
6361	Kinoussa					18	53	368	1,075	524	1,530		
6362	Makounta					156	456	197	575	366	1,069		
6363	Argaka					169	483	1,366	3,989	1,421	4,033		
6365	Agia Marina Chrys					15	44	324	946	474	1,209		
6367	Pomces					90	263	59	172	59	172		
6368	Steni							37	108	37	108		
146203	Misfilii												
500021	Zakaki												
<b>TOTAL</b>		<b>53,979</b>	<b>2,955,350</b>	<b>411,427</b>	<b>2,252,563</b>	<b>185,575</b>	<b>541,879</b>	<b>265,803</b>	<b>776,145</b>	<b>379,457</b>	<b>1,318,024</b>	<b>16,000,000</b>	<b>1,460,000</b>

**Note:** "No" stands for "Number of Animals"  
"WD" stands for "Water Demand"

Water Demand is given in m3 per year



**Ministry of Agriculture, Natural Resources and Environment  
of the Republic of Cyprus**

**Water Development Department**

**Food and Agriculture Organisation of the United Nations**

**Land and Water Development Division**

**TCP/CYP/8921**

**REASSESSMENT OF THE ISLAND'S WATER RESOURCES AND DEMAND**

**Objective 1 – Output 1.5.1**

**The Assessment of Water Demand of Cyprus**

## **ANNEXES 6-1 to 6-16**

**Details on Population Projection and Domestic Water Demand**



**ANNEX 6-1**

Estimated Population and Domestic Water Demand by Village

ANNEX 6-1

Code	Village Code	Village Name	Year 2000			Year 2005			Year 2010			Year 2020		
			Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	
2	1000	LEFKOSIA	52731	4138045	54874	4525897	56822	4923184	60324	5770676				
2	1000	LEFKOSIA e	0	0	0	0	0	0	0	0				
2	1000	LEFKOSIA w	0	0	0	0	0	0	0	0				
2	1010	AGIOS DOMETIOS	13584	1066007	14136	1165922	14638	1265267	15540	1486591				
2	11146	EKGOMI	874659	12010	956639	1040613	12010	1040613	1219748	1219748				
2	1012	STROVOLOS	57734	4530682	60081	4950336	62213	5390319	66048	6318226				
2	1013	AGLANGEIA MUNICIPALITY	19613	1539142	20410	1683404	21135	1831174	22438	2146432				
1	1014	ORTA KIOGIOU	0	0	0	0	0	0	0	0				
2	1021	LAKATAMEIA MUNICIPALITY	23466	1841516	24420	2014119	25287	2190919	26846	2566071				
2	1022	ANTHOUPOLIS	3849	302022	4005	330320	4147	359327	412871	412871				
2	1023	LATSIA	11228	881081	11684	963663	12099	1048264	12844	1226704				
2	1024	GERI	5585	438297	5812	479378	6018	521458	6390	611224				
1	1100	SIA	462	30343	473	32696	483	35039	503	40262				
1	1101	MATHIATIS	549	36091	563	38890	575	41677	598	47889				
1	1102	ALAMBRA	1101	72327	1129	77936	1151	83522	1198	95971				
1	1103	AGIA VARVARA	1444	94884	1481	102242	1511	109571	1572	125902				
1	1104	KOTSIATIS	157	10332	161	11134	164	11932	171	13710				
1	1105	NISOU	1266	83169	1298	89619	1324	96042	1378	110357				
1	1106	PERA GHORIO	2177	143054	2232	154148	2277	165196	2370	189818				
1	1107	DALI MUNICIPALITY	5268	348138	5402	372981	5510	399714	5735	459290				
1	1108	LYMPIA	2248	147711	2305	159166	2352	170574	2447	195997				
1	1109	LYTHRODONTAS	2232	146619	2288	157990	2334	169313	2429	194549				
1	1110	LOUROUKINA	0	0	0	0	0	0	0	0				
1	1120	POTAMIA	445	29251	456	31520	466	33779	485	38813				
1	1121	AGIOS SOZOMENOS	0	0	0	0	0	0	0	0				
1	1124	AGIA	0	0	0	0	0	0	0	0				
1	1125	TYMVOU	0	0	0	0	0	0	0	0				
1	1130	MORA	0	0	0	0	0	0	0	0				
1	1131	MIA MILIA	0	0	0	0	0	0	0	0				
1	1132	MANDRES	0	0	0	0	0	0	0	0				
1	1133	PALAIKYTHRO	0	0	0	0	0	0	0	0				
1	1134	EXO METOCHI	0	0	0	0	0	0	0	0				
1	1135	EPICHO	0	0	0	0	0	0	0	0				
1	1136	VONI	0	0	0	0	0	0	0	0				
2	1137	TRACHONI	0	0	0	0	0	0	0	0				
1	1138	NEO CHORIO KYTHREAS	0	0	0	0	0	0	0	0				
1	1139	KYTHREA	0	0	0	0	0	0	0	0				
1	1141	BEIKOI	0	0	0	0	0	0	0	0				
1	1142	PETRA TOU DIGENI	0	0	0	0	0	0	0	0				
1	1143	KALYVAKIA	0	0	0	0	0	0	0	0				
1	1144	KOUROU MONASTIRI	0	0	0	0	0	0	0	0				
1	1200	KAMPI	140	9168	143	9879	146	10587	152	12165				
1	1201	FARMAKAS	599	39365	614	42418	627	45458	652	52234				
1	1202	APLIKI	115	7567	118	8154	120	8739	125	10041				
1	1203	LAZANIA	25	1874	26	1803	27	1933	28	2221				
1	1204	GOURRI	267	17536	274	18896	279	20250	291	23269				
1	1205	FIKARDOU	9	582	9	627	9	672	10	772				
1	1206	AGIOS EPIFANIOS	390	25613	400	27599	408	29577	424	33986				
1	1207	KALON CHORION	569	37401	584	40301	595	43190	620	49627				
1	1208	MALOUNTA	353	23212	362	25012	370	26804	385	30900				
1	1209	KLIROU	1611	105872	1652	114082	1685	122259	1754	140481				
1	1210	AREDIU	1075	70654	1103	76133	1125	81590	1171	93750				
1	1211	AGIOS IOANNIS	416	27359	427	29481	436	31594	453	36303				
1	1212	AGROKIPPIA	434	28523	445	30735	454	32938	473	37848				
1	1213	MITSERO	758	49771	777	53630	792	57474	825	66041				



ANNEX 6-1

Code	Village Code	Village Name	Year 2000			Year 2005			Year 2010			Year 2020		
			Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	
1	1220	KAPEDES	521	34199	36851	534	0	39492	567	0	45379			
1	1221	KATALYONIAS	0	0	0	0	0	0	0	0	0			
1	1222	ANALYONIAS	290	19064	20543	297	20543	22015	316	25296	25296			
1	1223	KAMBIA	413	27141	29246	424	29246	31342	450	36013	36013			
1	1224	MARKI	78	5093	5488	79	5488	5882	84	6759	6759			
2	1225	TSERI	4682	367388	401823	4872	5045	437095	5356	512338	512338			
1	1226	POLITIKO	372	24449	26345	389	26345	32441	405	32441	32441			
1	1227	PERA	1041	68398	73702	1067	73702	78985	1133	108405	108405			
1	1228	EPISKOPEIO	501	32889	35440	513	35440	37980	545	43841	43841			
2	1229	PSIMOLOFOU	1240	97342	104891	1272	104891	112409	1350	129163	129163			
2	1230	ERGATES	1570	123242	1643	1610	1643	142318	1709	163530	163530			
2	1231	ANAGEIA	1089	85435	92060	1116	92060	98659	1185	113364	113364			
2	1232	PANO DEFTERA	1945	152618	164454	1994	164454	176241	2034	202509	202509			
2	1233	KATO DEFTERA	1551	121678	131114	1590	131114	140511	1688	161484	161484			
1	1240	AGIOI TRIMITHIAS	1253	82296	86678	1284	86678	95034	1363	109199	109199			
1	1241	PALAIOMETOCHO	3921	257585	277560	4020	277560	297454	4268	341789	341789			
1	1242	DENIA	249	16372	17642	255	17642	18906	271	21724	21724			
1	1243	KOKKINOTRIMITHIA	2923	192024	206916	2997	206916	221746	3181	254797	254797			
1	1244	MAMMARI	1123	73783	79505	1151	79505	85203	1222	97902	97902			
1	1246	AGIA MARINA	0	0	0	0	0	0	0	0	0			
1	1246	GEROLAKKOS	0	0	0	0	0	0	0	0	0			
1	1246	PROFITIS ELIAS (SKYLLOURAS)	0	0	0	0	0	0	0	0	0			
1	1247	SKYLLOURA	0	0	0	0	0	0	0	0	0			
1	1248	AGIOS VASILEIOS	0	0	0	0	0	0	0	0	0			
1	1249	DIO POTAMOI	0	0	0	0	0	0	0	0	0			
1	1250	KANLI	0	0	0	0	0	0	0	0	0			
1	1251	KIONELI	0	0	0	0	0	0	0	0	0			
1	1300	PALAICHORI MORFOU	920	60467	65156	944	65156	69826	1002	80233	80233			
1	1301	ASKAS	264	17318	18661	270	18661	19398	287	23979	23979			
1	1302	ALONA	209	13782	14819	215	14819	15881	228	18248	18248			
1	1303	FTERIKOUDI	185	12152	13094	190	13094	14032	201	16124	16124			
1	1304	POLYSTYPOS	284	18628	20072	291	20072	21511	309	24717	24717			
1	1305	LAGOUDERA	208	13660	14740	213	14740	15797	227	18151	18151			
1	1306	SARANTI	70	4584	4940	72	4940	5294	76	6083	6083			
1	1307	LIVADIA	25	1674	1803	26	1803	1933	28	2221	2221			
1	1308	ALITHINOU	13	873	941	14	941	1008	14	1159	1159			
1	1309	PLATANITASA	223	14626	15760	228	15760	16889	242	19407	19407			
1	1310	PALAICHORI ORINIS	494	32453	34969	506	34969	37476	538	43062	43062			
1	1320	XYLIATOS	151	9896	10663	154	10663	11428	164	13131	13131			
1	1321	AGIOS GEORGIOS KAFK	4	291	314	5	314	336	5	386	386			
1	1322	NIKITARI	490	32162	34656	502	34656	37140	533	42675	42675			
1	1323	VYZAKIA	446	29324	31598	458	31598	33863	486	38910	38910			
1	1324	AGIA MARINA	672	44168	47593	689	47593	51004	732	58606	58606			
1	1325	AGIOI ILIOFOTOI	0	0	0	0	0	0	0	0	0			
1	1326	KATO MONI	336	22047	23757	344	23757	25460	365	29255	29255			
1	1327	OROUNTA	762	50062	53944	781	53944	57810	829	66427	66427			
1	1328	PANO KOUTRAFAS	33	0	0	0	0	0	0	0	0			
1	1329	KATO KOUTRAFAS	33	2183	2352	34	2352	2521	36	2897	2897			
1	1330	POTAMI	599	39365	42418	614	42418	45458	652	52234	52234			
1	1340	MORFOU	0	0	0	0	0	0	0	0	0			
1	1350	PANO ZODEIA	0	0	0	0	0	0	0	0	0			
1	1351	KATO ZODEIA	0	0	0	0	0	0	0	0	0			
1	1352	KAZIVERA	0	0	0	0	0	0	0	0	0			
1	1353	PRASTION MORFOU	0	0	0	0	0	0	0	0	0			
1	1354	NIKITAS	0	0	0	0	0	0	0	0	0			
1	1355	SYRIANOCHORI	0	0	0	0	0	0	0	0	0			
1	1357	KALON CHORION MORFO	0	0	0	0	0	0	0	0	0			

ANNEX 6-1

Code	Village Code	Village Name	Year 2000			Year 2005			Year 2010			Year 2020		
			Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )
1	1360	AKAKI	2627	172596	185981	2693	172596	185981	2748	199311	199311	2860	229018	229018
1	1361	PERISTERONA	2524	165829	178689	2588	165829	178689	2640	191496	191496	2747	220038	220038
1	1362	ASTROMERITIS	2575	163176	182296	2640	163176	182296	2693	195362	195362	2803	224480	224480
1	1363	AVLONA	0	0	0	0	0	0	0	0	0	0	0	0
1	1364	KATOKOPIA	0	0	0	0	0	0	0	0	0	0	0	0
1	1365	ARGAKI	0	0	0	0	0	0	0	0	0	0	0	0
1	1366	MASARI	0	0	0	0	0	0	0	0	0	0	0	0
1	1367	FYLLIA	0	0	0	0	0	0	0	0	0	0	0	0
1	1368	MENIKO	1048	68835	74173	1074	68835	74173	1096	79489	79489	1140	91337	91337
1	1369	KYRA	0	0	0	0	0	0	0	0	0	0	0	0
1	1400	SPLIA	200	13170	14192	206	13170	14192	210	15209	15209	218	17476	17476
1	1402	AGIA EIRINI	56	3711	3999	58	3711	3999	59	4285	4285	61	4924	4924
1	1403	KANAVIA	202	13243	14270	207	13243	14270	211	15293	15293	219	17572	17572
1	1404	KAKOPETRIA	1386	91028	98087	1420	91028	98087	1449	105117	105117	1508	120785	120785
1	1405	AGIOS THEODOROS	113	7422	7997	116	7422	7997	118	8571	8571	123	9848	9848
1	1406	GALATA	852	55956	60295	873	55956	60295	891	64616	64616	927	74247	74247
1	1407	SINAGROS	253	16590	17877	259	16590	17877	264	19158	19158	275	22014	22014
1	1408	KALIANA	251	16517	17798	258	16517	17798	263	19074	19074	274	21917	21917
1	1409	TEMVRIA	712	46787	50416	730	46787	50416	745	54029	54029	775	62082	62082
1	1410	KORAKOU	647	42494	45790	663	42494	45790	676	49071	49071	704	56385	56385
1	1411	EVRYCHOU	970	63741	68684	995	63741	68684	1015	73607	73607	1056	84578	84578
1	1412	KATO FLASOU	290	19064	20543	297	19064	20543	303	22015	22015	316	25296	25296
1	1413	PANO FLASOU	38	2474	2666	39	2474	2666	39	2857	2857	41	3283	3283
1	1414	AGIOS EPIFANIOS	0	0	0	0	0	0	0	0	0	0	0	0
1	1415	LINOI	262	17245	18582	269	17245	18582	275	19914	19914	286	22882	22882
1	1416	KATYDATA	225	14771	15917	231	14771	15917	235	17057	17057	245	19600	19600
1	1417	SKOURIOTISSA	14	946	1019	15	946	1019	15	1092	1092	16	1255	1255
1	1420	PEDOULAS	325	21320	22973	333	21320	22973	339	24620	24620	353	28289	28289
1	1421	MYLIKOURI	84	5530	5959	86	5530	5959	88	6386	6386	92	7338	7338
1	1422	MOUTOULAS	444	29178	31441	455	29178	31441	465	33695	33695	483	38717	38717
1	1423	OIKOS	236	15499	16701	242	15499	16701	247	17898	17898	257	20565	20565
1	1424	KALOPANAGIOTIS	363	23867	25717	372	23867	25717	380	27561	27561	395	31669	31669
1	1425	GERAKIES	186	12224	13172	191	12224	13172	195	14116	14116	203	16220	16220
1	1426	TSAKISTRA	151	9896	10663	154	9896	10663	158	11428	11428	164	13131	13131
1	1427	KAMPOS	617	40530	43673	632	40530	43673	645	46803	46803	671	53779	53779
1	1430	AGIOS NIKOLAOS	0	0	0	0	0	0	0	0	0	0	0	0
1	1430	AGIOS NIKOLAOS	0	0	0	0	0	0	0	0	0	0	0	0
1	1431	AGIOS GEORGIOS	0	0	0	0	0	0	0	0	0	0	0	0
1	1432	PETRA	0	0	0	0	0	0	0	0	0	0	0	0
1	1433	KALON CHORION LEFKA	0	0	0	0	0	0	0	0	0	0	0	0
1	1435	LEFKA	0	0	0	0	0	0	0	0	0	0	0	0
1	1436	AMPELIKOU	0	0	0	0	0	0	0	0	0	0	0	0
1	1437	PERISTERONARI	0	0	0	0	0	0	0	0	0	0	0	0
1	1438	ELIA	0	0	0	0	0	0	0	0	0	0	0	0
1	1439	KARAVOSTASI	0	0	0	0	0	0	0	0	0	0	0	0
1	1439	XEROS	0	0	0	0	0	0	0	0	0	0	0	0
1	1441	PENTAGEIA	0	0	0	0	0	0	0	0	0	0	0	0
1	1443	AGKOLEMI	0	0	0	0	0	0	0	0	0	0	0	0
1	1450	VAREISIA	0	0	0	0	0	0	0	0	0	0	0	0
1	1451	GALINI	0	0	0	0	0	0	0	0	0	0	0	0
1	1452	LIMINITIS	0	0	0	0	0	0	0	0	0	0	0	0
1	1452	XEROVOUNOS	0	0	0	0	0	0	0	0	0	0	0	0
1	1453	LOUTROS	0	0	0	0	0	0	0	0	0	0	0	0
1	1454	AGIOS IOANNIS SELEMANI	0	0	0	0	0	0	0	0	0	0	0	0
1	1455	AMMIADIES	0	0	0	0	0	0	0	0	0	0	0	0
1	1456	PANO PYRGOS	43	2838	3058	44	2838	3058	45	3277	3277	47	3765	3765
1	1457	KATO PYRGOS	1279	84042	90560	1311	84042	90560	1338	97051	97051	1392	111516	111516

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Code	Village Code	Village Name	Year 2000		Year 2005		Year 2010		Year 2020	
			Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )
1	1458	SELLADI TOU APPI	0	0	0	0	0	0	0	0
1	1459	ALEVGA	0	0	0	0	0	0	0	0
1	1460	HALERI	0	0	0	0	0	0	0	0
1	1461	PIGENIA	216	14169	221	15289	226	16385	235	18827
1	1462	PACHYAMMOS	144	9459	148	10193	151	10923	157	12552
1	1463	AGIOS THEODOROS	30	1965	31	2117	31	2269	33	2607
1	1464	MOSFILERI (AG. THEODOROS)	0	0	0	0	0	0	0	0
1	1465	KOKKINA	0	0	0	0	0	0	0	0
1	1466	FRODISIA(VROISIA)	0	0	0	0	0	0	0	0
1	2000	KYRENEIA	0	0	0	0	0	0	0	0
1	2100	PANO DIKOMO	0	0	0	0	0	0	0	0
1	2101	KATO DIKOMO	0	0	0	0	0	0	0	0
1	2102	KOUTSOVENTIS	0	0	0	0	0	0	0	0
1	2103	VOUNO	0	0	0	0	0	0	0	0
1	2104	SICHARI	0	0	0	0	0	0	0	0
1	2110	FOTA	0	0	0	0	0	0	0	0
1	2111	KRINI	0	0	0	0	0	0	0	0
1	2112	PILERI	0	0	0	0	0	0	0	0
1	2113	KIOMORTSIOU	0	0	0	0	0	0	0	0
1	2114	AGIRTA	0	0	0	0	0	0	0	0
1	2120	AGIOS ERMOLAOS	0	0	0	0	0	0	0	0
1	2120	AGIOS GEORGIOS	0	0	0	0	0	0	0	0
1	2121	SYSKLIPOS	0	0	0	0	0	0	0	0
1	2122	KONTEMENOS	0	0	0	0	0	0	0	0
1	2123	ASOMATOS	0	0	0	0	0	0	0	0
1	2124	KAMPYLI	0	0	0	0	0	0	0	0
1	2125	KARPASEIA	0	0	0	0	0	0	0	0
1	2126	MYRTOU	0	0	0	0	0	0	0	0
1	2127	DIORIOS	0	0	0	0	0	0	0	0
1	2128	AGIA IRINI	0	0	0	0	0	0	0	0
1	2129	KORMAKITIS	0	0	0	0	0	0	0	0
1	2130	LIVERAS	0	0	0	0	0	0	0	0
1	2200	KALOGRAIA	0	0	0	0	0	0	0	0
1	2201	AGIOS AMVROSIOS	0	0	0	0	0	0	0	0
1	2202	CHARKEIA	0	0	0	0	0	0	0	0
1	2203	TRAPEZA	0	0	0	0	0	0	0	0
1	2204	KLEPINI	0	0	0	0	0	0	0	0
1	2205	AGIOS EPIKTITOS	0	0	0	0	0	0	0	0
1	2206	BELLAPAI	0	0	0	0	0	0	0	0
1	2207	KAZAFANI	0	0	0	0	0	0	0	0
1	2208	THERMEIA	0	0	0	0	0	0	0	0
1	2209	KARAKOUMI	0	0	0	0	0	0	0	0
1	2210	TEMPLOS	0	0	0	0	0	0	0	0
1	2211	KARMI	0	0	0	0	0	0	0	0
1	2212	FTERICHA	0	0	0	0	0	0	0	0
1	2213	TRIMITHI	0	0	0	0	0	0	0	0
1	2214	PALAIOSOFOS	0	0	0	0	0	0	0	0
1	2215	MOTIDES	0	0	0	0	0	0	0	0
1	2216	ELIA	0	0	0	0	0	0	0	0
1	2217	KARAVAS	0	0	0	0	0	0	0	0
1	2220	AGRIDAKI	0	0	0	0	0	0	0	0
1	2221	LARNAKA LAPITHOU	0	0	0	0	0	0	0	0
1	2222	LAPITHOS MUNICIPALITY	0	0	0	0	0	0	0	0
1	2223	VASILEIA	0	0	0	0	0	0	0	0
1	2224	PANAGRA	0	0	0	0	0	0	0	0
1	2226	ORGA	0	0	0	0	0	0	0	0
1	3000	AMMOCHOSTOS(MUNICIPALITY)	0	0	0	0	0	0	0	0

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Code	Village Code	Village Name	Year 2000		Year 2005		Year 2010		Year 2020	
			Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )
1	3000	AIMMOCHOSTOS(MUNICIPALITY)n	0	0	0	0	0	0	0	0
1	3000	AIMMOCHOSTOS(MUNICIPALITY)s	0	0	0	0	0	0	0	0
2	3100	AGIA NAPA	1988	156008	2038	168106	2079	180155	2164	207007
2	3101	PARALIMNI	8551	671052	8767	723092	8944	774918	9308	890418
2	3102	DERYNEIA	4613	361991	4729	390063	4825	418020	5021	480325
1	3103	SOTIRA	3936	258531	4034	278579	4116	298546	4283	343044
1	3104	LIOPETRI	3678	241649	3771	260389	3847	279052	4004	320644
1	3105	FRENAROS	3458	227169	3545	244786	3616	262331	3764	301431
1	3110	AVGOROU	3970	260859	4071	281088	4153	301235	4322	346133
1	3111	ACHNA	1953	128283	2002	138231	2042	148139	2125	170218
1	3112	AGIOS SERGIOS	0	0	0	0	0	0	0	0
1	3112	MAKRASYKA	0	0	0	0	0	0	0	0
1	3113	KALOPSIDA	0	0	0	0	0	0	0	0
1	3114	ACHERITOU	1964	129011	2013	139015	2054	148979	2137	171184
1	3120	EKKOMI	0	0	0	0	0	0	0	0
1	3122	STYLLOI	0	0	0	0	0	0	0	0
1	3123	LIMNIA	0	0	0	0	0	0	0	0
1	3124	ALODA	0	0	0	0	0	0	0	0
1	3130	SPATHARIKO	0	0	0	0	0	0	0	0
1	3131	ARNADI	0	0	0	0	0	0	0	0
1	3132	AGIOS GEORGIOS	0	0	0	0	0	0	0	0
1	3133	PERIVOLIA TOU TRIKOMOU	0	0	0	0	0	0	0	0
1	3134	SYGKRASI	0	0	0	0	0	0	0	0
1	3135	LAPATHOS	0	0	0	0	0	0	0	0
1	3136	TRIKOMO	0	0	0	0	0	0	0	0
1	3200	KOUKLIA	0	0	0	0	0	0	0	0
1	3201	KONTEA	0	0	0	0	0	0	0	0
1	3202	LYSI MUNICIPALITY	0	0	0	0	0	0	0	0
1	3203	VATILI	0	0	0	0	0	0	0	0
1	3204	STROGYLOS	0	0	0	0	0	0	0	0
1	3205	SINTA	0	0	0	0	0	0	0	0
1	3205	SINTA	0	0	0	0	0	0	0	0
1	3210	NEA SPARTI	0	0	0	0	0	0	0	0
1	3211	PRASTIO	0	0	0	0	0	0	0	0
1	3212	PYRGA	0	0	0	0	0	0	0	0
1	3213	MOUSOULITA	0	0	0	0	0	0	0	0
1	3214	SANTALARIS	0	0	0	0	0	0	0	0
1	3215	MARATHA	0	0	0	0	0	0	0	0
1	3216	PERISTERONA	0	0	0	0	0	0	0	0
1	3217	PIGI	0	0	0	0	0	0	0	0
1	3218	GENAGRA	0	0	0	0	0	0	0	0
1	3219	MILIA	0	0	0	0	0	0	0	0
1	3220	GYP SOU	0	0	0	0	0	0	0	0
1	3221	LEFKONOIKO MUNICIPALITY	0	0	0	0	0	0	0	0
1	3222	PSYLLATOS	0	0	0	0	0	0	0	0
1	3223	KNODARA	0	0	0	0	0	0	0	0
1	3224	GOUFES	0	0	0	0	0	0	0	0
1	3231	ASKEIA	0	0	0	0	0	0	0	0
1	3232	AFANTEIA	0	0	0	0	0	0	0	0
1	3233	AGKASTINA	0	0	0	0	0	0	0	0
1	3234	MARATHOVOUNOS	0	0	0	0	0	0	0	0
1	3235	VITSADA	0	0	0	0	0	0	0	0
1	3236	KIADOS (TJAOS)	0	0	0	0	0	0	0	0
1	3237	KORNOKIPOS	0	0	0	0	0	0	0	0
1	3238	AGIOS CHARITON	0	0	0	0	0	0	0	0
1	3239	TRYPIMENI	0	0	0	0	0	0	0	0
1	3300	ARTEMI	0	0	0	0	0	0	0	0

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			Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )
1	3303	PLATANI	0	0	0	0	0	0	0	0
1	3304	AKANTHOU	0	0	0	0	0	0	0	0
1	3305	MELOUNTA	0	0	0	0	0	0	0	0
1	3310	AGIOS IAKOVOS	0	0	0	0	0	0	0	0
1	3311	AGIOS ANDRONIKOS	0	0	0	0	0	0	0	0
1	3312	MANDRES	0	0	0	0	0	0	0	0
1	3313	ARDANA	0	0	0	0	0	0	0	0
1	3314	FLAMOUDI	0	0	0	0	0	0	0	0
1	3320	BOGAZI	0	0	0	0	0	0	0	0
1	3321	MONARGA	0	0	0	0	0	0	0	0
1	3322	AGIOS ILIAS	0	0	0	0	0	0	0	0
1	3323	GASTRIA	0	0	0	0	0	0	0	0
1	3324	AVGOLIDA	0	0	0	0	0	0	0	0
1	3325	PATRIKI	0	0	0	0	0	0	0	0
1	3326	GERANI	0	0	0	0	0	0	0	0
1	3327	OVGOROS	0	0	0	0	0	0	0	0
1	3328	DAVLOS	0	0	0	0	0	0	0	0
1	3330	AGIOS THEODOROS	0	0	0	0	0	0	0	0
1	3331	VOKOLIDA	0	0	0	0	0	0	0	0
1	3332	TAVROU	0	0	0	0	0	0	0	0
1	3333	AGIOS EFSATHIOS	0	0	0	0	0	0	0	0
1	3334	LIVADIA	0	0	0	0	0	0	0	0
1	3335	KRIDEIA	0	0	0	0	0	0	0	0
1	3336	KOMI KEPIR	0	0	0	0	0	0	0	0
1	3337	GALATEIA	0	0	0	0	0	0	0	0
1	3338	EFTAKOMI	0	0	0	0	0	0	0	0
1	3340	KOMA TOU GIALOU	0	0	0	0	0	0	0	0
1	3341	NETA	0	0	0	0	0	0	0	0
1	3342	VOTHYLAKEAS	0	0	0	0	0	0	0	0
1	3343	LYTHRAGKOMI	0	0	0	0	0	0	0	0
1	3344	VASILI	0	0	0	0	0	0	0	0
1	3345	LEONARISOS	0	0	0	0	0	0	0	0
1	3346	PLATANISSOS	0	0	0	0	0	0	0	0
1	3347	KOILANEMOS	0	0	0	0	0	0	0	0
1	3348	AGIOS ANDRONIKOS	0	0	0	0	0	0	0	0
1	3350	AGIOS SYMEON	0	0	0	0	0	0	0	0
1	3351	MELANARGA	0	0	0	0	0	0	0	0
1	3352	AIGIALOUSA	0	0	0	0	0	0	0	0
1	3353	AGIA TRIAS	0	0	0	0	0	0	0	0
1	3354	KOROVEIA	0	0	0	0	0	0	0	0
1	3355	GALINOPORNI	0	0	0	0	0	0	0	0
1	3356	RIZOKARPASO	0	0	0	0	0	0	0	0
2	4000	LARNAKA e MUNICIPALITY	48825	3831523	50809	4190646	52613	4558503	55856	5343219
2	4000	LARNAKA e MUNICIPALITY	0	0	0	0	0	0	0	0
2	4000	LARNAKA w	0	0	0	0	0	0	0	0
2	4010	ARADIPPOU	8091	634954	8420	694467	8719	755428	9256	885469
2	4011	LIVADIA	4409	346003	4588	378433	4751	411652	5044	482515
2	4012	DROMOLAXIA	4953	388726	5155	425160	5338	462481	5667	542094
2	4013	MENEOU	1066	83600	1109	91435	1148	99462	1219	116583
2	4014	VOROGLINI COSTAL ZONE	326	25552	334	27534	341	29507	354	33905
1	4015	PYLA COSTAL ZONE	161	10551	165	11369	168	12184	175	14000
1	4100	KELLIA	375	24667	385	26580	393	28485	409	32731
1	4101	TROULLOI	983	64614	1008	69625	1029	74616	1071	85737
2	4102	VOROGLINI	1842	144536	1888	155744	1926	166907	2005	191784
1	4103	AVDELLERO	92	6039	94	6508	96	6974	100	8014
1	4104	PYLA	800	52536	820	56610	836	60667	870	69709
1	4105	XYLOTYMOVOU	3475	228333	3563	246041	3635	263675	3783	302975

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			Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )
1	4106	ORMIDEIA	4078	267917	286894	4181	0	4265	309386	4439	355499			
1	4107	XYLOFAGOU	4996	328238	353693	5122	0	5225	379044	5438	435539			
1	4108	PERGAMOS	0	0	0	0	0	0	0	0	0			
2	4110	KITI	2936	230405	252000	3055	0	3164	274121	3359	321309			
1	4111	PERIVOLIA	1689	109655	118159	1711	0	1746	126628	1817	145502			
1	4112	TERSEFANOU	818	53773	57943	839	0	856	62096	891	71351			
1	4113	SOFTADES	0	0	0	0	0	0	0	0	0			
1	4120	MAZOTOS	737	48368	52141	755	0	770	55878	802	64206			
1	4121	ALAMINOS	289	18991	20464	296	0	302	21931	315	25200			
1	4122	ANAFOTIA	650	42712	46025	667	0	680	49324	708	56675			
1	4123	APLANTA	0	0	0	0	0	0	0	0	0			
1	4124	KIVISILI	236	15499	16701	242	0	247	17898	257	20565			
1	4125	ALETHRIKO	684	44968	48455	702	0	716	51928	745	59668			
1	4126	KLAVDIA	595	39074	42104	610	0	622	45122	647	51848			
1	4127	ANGLISIDES	998	65560	70645	1023	0	1044	75708	1086	86992			
1	4128	MENOGEIA	82	5385	5602	84	0	86	6218	89	7145			
1	4201	PETROFANI	0	0	0	0	0	0	0	0	0			
1	4202	ATHENOU	4284	281451	303278	4392	0	4481	325015	4663	373457			
1	4203	MELOUSEIA	0	0	0	0	0	0	0	0	0			
1	4204	TREMETSUSIA	0	0	0	0	0	0	0	0	0			
1	4205	ARSOS	0	0	0	0	0	0	0	0	0			
2	4210	KALON CHORIO	1521	119378	130567	1583	0	1639	142028	1740	166478			
1	4211	AGIA ANNA	222	14553	15681	232	0	232	16805	241	19310			
1	4212	MOSFILOTI	1052	69126	74486	1079	0	1100	79825	1145	91723			
1	4213	PSEVDAS	911	59885	64529	935	0	953	69154	992	79461			
1	4214	PYRGA	423	27986	29951	434	0	443	32098	461	36882			
1	4215	KORNOS	1706	112057	120746	1749	0	1857	129401	1887	148688			
1	4216	DELIKIPOS	11	728	784	11	0	12	840	12	966			
1	4217	KOCHI	0	0	0	0	0	0	0	0	0			
1	4300	ZYGI	482	31652	34107	494	0	504	36552	524	41989			
1	4301	MARI	261	17172	18504	268	0	273	19830	285	22786			
1	4302	KALAVASOS	711	46714	50337	729	0	744	53945	774	61985			
1	4303	TOCHNI	329	21611	23287	337	0	344	24956	358	28675			
1	4304	CHOIROKOITIA	436	28669	30892	447	0	456	33106	475	38041			
1	4305	PSEMATISMENOS	162	10624	11447	166	0	169	12268	176	14096			
1	4306	MARONI	470	30852	33244	481	0	491	35627	511	40937			
1	4307	AGIOS THEODOROS	639	41965	45241	655	0	668	48483	696	55710			
1	4308	SKARINOU	207	13607	14662	212	0	217	15713	225	18055			
1	4309	KOFINOU	1593	104635	112749	1633	0	1666	120830	1734	138840			
1	4310	KATO LEFKARA	162	10624	11447	166	0	169	12268	176	14096			
1	4311	PANO LEFKARA	1075	70654	76133	1103	0	1125	81590	1171	93750			
1	4312	KATO DRYs	124	8150	8782	127	0	130	9411	135	10814			
1	4313	VAVLA	64	4220	4548	66	0	67	4874	70	5600			
1	4314	LAGEIA	24	1601	1725	25	0	25	1849	27	2124			
1	4315	ORA	200	13170	14192	206	0	210	15209	218	17476			
1	4316	MELINI	100	6549	7057	102	0	104	7562	108	8690			
1	4317	ODOU	156	10260	11058	160	0	163	11848	170	13614			
1	4318	AGIOI VAVATSIAS	240	15790	17014	246	0	251	18234	262	20951			
1	4319	VAVATSIAS	101	6622	7135	103	0	105	7646	110	8786			
2	5000	LEMESOS	0	0	0	0	0	0	0	0	0			
2	5000	LEMESOS MUNICIPALITY <sup>ne</sup>	97749	7670882	8389862	101722	0	105333	9126330	111826	10697365			
2	5000	LEMESOS <sup>nw</sup>	0	0	0	0	0	0	0	0	0			
2	5000	LEMESOS <sup>w</sup>	0	0	0	0	0	0	0	0	0			
1	5010	AMATHOUNTA	1193	78367	84444	1223	0	1248	90497	1298	103985			
2	5011	MESA GEITONIA MUNICIPALITY	12938	1015290	1110451	13464	0	13941	1207927	14801	1415864			
2	5012	AGIOS ATHANASIOS MUNICIPALITY	7774	610072	667253	8090	0	8377	725825	8894	850771			
2	5013	GERMASOGEIA MUNICIPALITY	6621	519573	568272	6890	0	7135	618156	7574	724567			

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			Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )
2	5020	PANO POLEMIDIA	4154	325988	351268	4259	351268	4410	382103	4682	447879			
2	5021	YFSONAS	5020	393950	424500	5147	424500	5330	461763	5658	541252			
2	5022	KATO POLEMIDIA MUNICIPALITY	17932	1407215	1516343	18385	1516343	19037	1649449	20211	1933390			
1	5100	PALODEIA	350	22955	25150	364	25150	0	0	0	0			
1	5101	PARAMYTHA	265	17391	18739	271	18739	277	20082	288	23076			
1	5102	SPITALI	241	15863	17093	248	17093	253	18318	263	21048			
1	5103	FASOULA	362	23794	25639	371	25639	379	27477	394	31572			
1	5104	MATHIKOLONI	72	4730	5096	74	5096	75	5462	78	6276			
1	5105	GERASA	111	7276	7841	114	7841	116	8403	121	9655			
1	5106	APSTIOU	205	13461	14505	210	14505	214	15545	223	17862			
1	5107	APAISIA	310	20374	23527	324	23527	338	27034	338	27034			
1	5108	KORFI	176	11569	12467	181	12467	184	13360	192	15352			
1	5109	LIMNATIS	334	21975	23679	343	23679	350	25376	364	29158			
1	5110	KAPILEIO	30	1965	2117	31	2117	31	2269	33	2607			
2	5120	MOUTAGIAKA	1623	127384	139324	1689	139324	1749	151554	1857	177643			
1	5121	ARMENOCHORI	156	10260	11055	160	11055	163	11848	170	13614			
1	5122	FOINIKARIA	182	11933	12859	186	12859	190	13780	198	15834			
1	5123	AKROUNTA	311	20447	22032	319	22032	326	23611	339	27131			
1	5124	AGIOS TYCHON	362	25104	27050	392	27050	400	28989	416	33310			
1	5125	PAREKLISIA	941	61849	66646	965	66646	985	71423	1025	82068			
1	5126	PENTAKOMO	385	25322	27286	395	27286	403	29241	420	33600			
1	5127	MONAGROULLI	318	20883	22503	326	22503	332	24116	346	27710			
1	5128	MONI	301	19792	21327	309	21327	315	22855	328	26262			
1	5129	PYRGOS	998	65560	70645	1023	70645	1044	75708	1086	86992			
1	5130	ASGATA	331	21756	23444	340	23444	346	25124	360	28869			
1	5131	VASA (KELLAKIOU)	82	5385	5802	84	5802	86	6218	89	7145			
1	5132	SANIDA	51	3274	3781	51	3781	52	4345	54	4345			
1	5133	PRASTIO (KELLAKIOU)	87	5748	6194	90	6194	92	6638	95	7627			
1	5134	KLONARI	19	1237	1333	19	1333	20	1428	20	1641			
1	5135	VIKLA	0	0	0	0	0	0	0	0	0			
1	5136	KELLAKI	240	15790	17014	246	17014	251	18234	262	20951			
1	5137	AKAPNOU	38	2474	2666	39	2666	39	2857	41	3283			
1	5138	EFTAGONEIA	326	21393	23052	334	23052	341	24704	354	28386			
1	5140	DIERONA	317	20811	22424	325	22424	331	24032	345	27613			
1	5141	ARAKAPAS	362	23794	25639	371	25639	379	27477	394	31572			
1	5142	AGIOS PAVLOS	193	12661	13643	198	13643	202	14621	210	16800			
1	5143	AGIOS KONSTANTINOS	212	13898	14976	217	14976	221	16049	230	18441			
1	5144	SYKOPETRA	89	5821	6273	91	6273	93	6722	96	7724			
1	5145	LOUVARAS	387	25395	27364	396	27364	404	29325	421	33696			
1	5146	KALON CHORIO	477	31361	33793	489	33793	499	36215	520	41613			
1	5147	ZOOPIGI	204	13369	14427	209	14427	213	15461	222	17765			
2	5200	AKROTIRI	680	53384	57503	697	57503	711	61624	740	70809			
2	5201	ASOMATOS	307	24075	25942	315	25942	321	27801	334	31945			
1	5202	TSERKESOI	31	2037	2195	32	2195	32	2353	34	2703			
2	5203	TRAGHONI	3347	262650	283018	3431	283018	3501	303303	3643	348510			
2	5210	KOLOSSI	3303	259173	279272	3366	279272	3454	299288	3595	343897			
2	5211	ERIMI	1240	97342	104891	1272	104891	1297	112409	1350	129163			
2	5212	EPISKOPI	3089	202946	218685	3167	218685	3231	234358	3362	269289			
1	5213	KANTOU	444	29169	31431	455	31431	464	33684	483	38705			
1	5214	SOTIRA	78	5105	5501	80	5501	81	5895	85	6773			
1	5220	PRASTIO (AVDIMIOU)	219	14386	15480	224	15480	229	16590	238	19062			
1	5221	PARAMALI	160	10501	11315	167	11315	174	12126	174	13934			
1	5222	AVDIMIOU	707	46452	50055	725	50055	740	53642	770	61637			
1	5223	PLATANISKEIA	39	2552	2750	40	2750	41	2947	42	3387			
1	5224	AGIOS THOMAS	52	3427	3693	53	3693	55	3958	57	4548			
1	5225	ALEKTORA	137	8970	9665	140	9665	143	10358	149	11902			
1	5226	ANOGYRA	206	13564	14616	212	14616	216	15663	225	17998			

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Code	Village Code	Village Name	Year 2000			Year 2005			Year 2010			Year 2020		
			Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Annual Water Demand (m <sup>3</sup> )
1	5227	PISSOURI	976	64100	69071	1000	69071	1020	74021	74021	1062	85054		
1	5300	ZANAKIA	40	2620	2623	41	2623	42	3025	3025	43	3476		
1	5301	SOUNI	254	16699	17995	261	17995	266	19284	19284	277	22159		
1	5302	ALASSA	202	13272	14301	207	14301	211	15326	15326	220	17611		
1	5303	KATO KIVIDES	0	0	0	0	0	0	0	0	0	0		
1	5304	PANO KIVIDES	674	44313	47790	692	47790	705	51172	51172	734	58799		
1	5305	AGIOS AMVROSIOS	322	21148	22788	330	22788	337	24421	24421	350	28061		
1	5306	AGIOS THERAPON	190	12515	13486	195	13486	199	14453	14453	207	16607		
1	5307	LOFOU	41	2692	2901	42	2901	43	3109	3109	45	3572		
1	5308	PACHNA	1300	85425	92050	1333	92050	1360	98647	98647	1415	113950		
1	5310	AGIOS GEORGIOS	100	6549	7057	102	7057	104	7562	7562	108	8690		
1	5311	DOROS	125	8222	8860	128	8860	131	9495	9495	136	10910		
1	5312	LANEIA	185	12152	13094	190	13094	193	14032	14032	201	16124		
1	5313	SILIKOU	125	8222	8860	128	8860	131	9495	9495	136	10910		
1	5314	MONAGRI	199	13098	14113	204	14113	209	15125	15125	217	17379		
1	5315	TRIMIKINI	281	18482	19915	288	19915	294	21343	21343	306	24524		
1	5316	AGIOS MAMAS	183	12006	12937	187	12937	191	13864	13864	199	15931		
1	5317	KOUKA	16	1019	1098	16	1098	16	1176	1176	17	1352		
1	5318	MONIATIS	244	16008	17249	250	17249	255	18486	18486	265	21241		
1	5320	DORA	274	17973	19366	280	19366	286	20755	20755	298	23848		
1	5321	GEROVASA	3	218	235	3	235	3	252	252	4	290		
1	5322	ARSOS	349	22921	24698	358	24698	365	26468	26468	380	30413		
1	5323	KISSOUSA	4	291	314	5	314	5	336	336	5	366		
1	5324	MALIA	64	4220	4548	66	4548	67	4874	4874	70	5600		
1	5325	VASA (KOILANIU)	193	12661	13643	198	13643	202	14621	14621	210	16800		
1	5326	YOUNI	209	13752	14819	215	14819	219	15881	15881	228	18248		
1	5327	PERA PEDI	93	6112	6586	95	6112	97	7058	7058	101	8110		
1	5328	MANDRIA	119	7786	8390	121	8390	124	8991	8991	129	10331		
1	5329	POTAMIOU	55	3638	3920	57	3920	58	4201	4201	60	4828		
1	5330	OMODOS	439	28815	31049	450	31049	459	33274	33274	477	38234		
1	5331	KOILANI	373	24521	26423	383	26423	390	28317	28317	406	32538		
1	5340	AGIOS DIMITRIOS	81	5312	5724	83	5724	85	6134	6134	88	7048		
1	5341	PALAIOMYLOS	37	2401	2587	37	2587	38	2773	2773	40	3186		
1	5342	PRODROMOS	230	15135	16309	236	16309	241	17478	17478	251	20082		
1	5343	KAMINARIA	153	10041	10820	157	10820	160	11596	11596	166	13324		
1	5344	TREIS ELIES	89	5821	6273	91	6273	93	6722	6722	96	7724		
1	5345	LEMITHOU	185	12152	13094	190	13094	193	14032	14032	201	16124		
1	5350	KATO PLATRES	147	9678	10428	151	10428	154	11176	11176	160	12841		
1	5351	PANO PLATRES	418	27432	29559	428	29559	437	31678	31678	454	36400		
1	5352	FOINI	618	40602	43751	634	43751	646	46887	46887	673	53875		
1	5353	PANO AMANTOS	9	582	627	9	627	9	672	672	10	772		
1	5354	KATO AMANTOS	281	18482	19915	288	19915	294	21343	21343	306	24524		
1	5360	AGIOS THEODOROS	153	10041	10820	157	10820	160	11596	11596	166	13324		
1	5361	AGIOS IOANNIS	535	35145	37870	548	37870	559	40585	40585	582	46634		
1	5362	KATO MYLOS	72	4730	5096	74	5096	75	5462	5462	78	6276		
1	5363	POTAMITISSA	128	8441	9095	132	9095	134	9747	9747	140	11200		
1	5364	DYMES	183	12006	12937	187	12937	191	13864	13864	199	15931		
1	5365	PELENDRI	1525	100196	107966	1564	107966	1595	115705	115705	1660	132950		
1	5366	AGROS	846	55592	59003	868	59003	885	64196	64196	921	73765		
1	5367	AGRIDIA	175	11497	12388	179	12388	183	13276	13276	190	15255		
1	5368	CHANDRIA	294	18946	20307	294	20307	300	21763	21763	312	25007		
1	5369	KYPEROUNTA	1611	105872	114082	1652	114082	1665	122259	122259	1754	140481		
2	6000	PAFOS e	0	0	0	0	0	0	0	0	0	0		
2	6000	PAFOS MUNICIPALITY	21928	1720769	1882055	22819	1882055	23629	2047263	2047263	25085	2399685		
2	6000	PAFOS w	0	0	0	0	0	0	0	0	0	0		
2	6010	GEROSKIPOU	4685	367649	422413	4875	422413	5048	437406	437406	5360	512703		
2	6011	KONIA	663	52016	59764	690	59764	714	61885	61885	758	72538		



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1	6012	AGIA MARINOUDA	103	6767	7292	106	7292	108	7814	112	8979			
1	6013	KOLONI	222	14553	15681	227	15681	241	16805	241	19310			
1	6014	ACHELEIA	82	6014	5802	84	5802	86	6218	89	7145			
1	6015	PART OF AIRPORT TIMI	18	1164	1255	18	1255	19	1344	19	1545			
1	6016	INDUSTRIAL AREA ANATOLIKO	17	1091	1176	17	1176	17	1260	18	1448			
2	6020	CHLORAKAS	2291	179755	196604	2384	196604	2468	213862	2620	250677			
2	6021	LEMPA	219	6021	18770	228	18770	236	20418	250	23933			
2	6022	EMPA	2332	183029	200184	2427	200184	2513	217756	2668	255241			
2	6023	TRIMITHOUSA	443	34766	38024	461	38024	477	41362	507	48482			
2	6024	MESA CHORIO	311	24416	28052	324	28052	335	29048	356	34049			
2	6025	MESOGI	1196	6025	102656	1245	102656	1269	116667	1368	130890			
2	6026	TALA	823	64578	70630	856	70630	887	76830	941	90056			
2	6027	KISSONERGA	1231	96601	105655	1281	105655	1326	114930	1408	134714			
2	6028	IMAA CORAL BAY	138	10792	11804	143	11804	148	12840	157	15050			
2	6029	PART OF KOILI	13	873	941	14	941	14	1008	14	1159			
1	6100	KOUKLIA	744	48897	52689	763	52689	778	56466	810	64882			
1	6101	MANDRIA	462	30343	32696	473	32696	483	35039	503	40262			
1	6102	NIKOKLEIA	82	5385	5802	84	5802	86	6218	89	7145			
1	6103	SOUSKIOU	0	0	0	0	0	0	0	0	0			
1	6104	TIMI	930	61122	65862	954	65862	973	70582	1013	81102			
1	6106	AGIA VARVARA	56	3711	3999	58	3999	59	4285	61	4924			
1	6107	ANARITA	362	23794	25639	371	25639	379	27477	394	31572			
1	6108	FOINIKAS	0	0	0	0	0	0	0	0	0			
1	6110	MARATHOUMTA	250	16445	17720	257	17720	262	18990	272	21820			
1	6111	ARMOU	310	20367	22276	323	22276	334	24231	355	28403			
1	6112	EPISKOPI	285	18700	20151	292	20151	296	21595	310	24813			
1	6113	NATA	264	17318	18661	270	18661	278	19998	287	22979			
1	6114	CHOLETRIA	276	18118	19523	283	19523	288	20923	300	24041			
1	6115	AXYLOU	54	3565	3842	56	3842	57	4117	59	4731			
1	6116	ELEDIO	34	2256	2431	35	2431	36	2605	37	2993			
1	6120	TSADA	744	48897	52689	763	52689	778	56466	810	64882			
1	6121	KOILI	307	20156	21719	315	21719	321	23275	334	26744			
1	6122	STROUMPI	538	35363	38106	552	38106	563	40837	586	46924			
1	6123	POLEMI	804	52827	56923	824	56923	841	61003	875	70096			
1	6124	KALLEPEIA	278	18264	19680	285	19680	291	21091	303	24234			
1	6125	LETYMPOU	378	24813	26737	387	26737	395	28653	411	32924			
1	6126	PITARKOU	0	0	0	0	0	0	0	0	0			
1	6127	KOURDAKA	0	0	0	0	0	0	0	0	0			
1	6128	LEMONA	110	7204	7762	112	7762	115	8319	119	9558			
1	6129	CHOLOU	298	19574	21091	305	21091	312	22603	324	25972			
1	6130	AKOIRSOS	53	3493	3764	55	3764	56	4033	58	4634			
1	6132	KATHIKAS	428	28087	30265	438	30265	447	32434	465	37268			
1	6133	PEGEIA	1718	112857	121609	1761	121609	1797	130325	1870	149750			
1	6200	PANO ARCHIMANDRITA	79	5166	5567	81	5567	82	5966	86	6855			
1	6201	FASOULA	70	4584	4940	72	4940	73	5294	76	6083			
1	6202	MOUSERE	0	0	0	0	0	0	0	0	0			
1	6203	MARONAS	0	0	0	0	0	0	0	0	0			
1	6204	MAMONIA	58	3784	4077	59	4077	60	4369	63	5021			
1	6205	AGIOS GEORGIOS	127	8368	9017	131	9017	133	9663	139	11103			
1	6206	STAUROKONOU	78	5093	5488	79	5488	81	5882	84	6759			
1	6207	PRASTIO	1	73	78	1	78	1	84	1	97			
1	6208	TRACHYPEDOULA	120	7859	8468	123	8468	125	9075	130	10427			
1	6210	KELOKEDARA	343	22557	24306	352	24306	359	26048	374	29531			
1	6211	SALAMIOU	351	23066	24855	360	24855	367	26636	382	30606			
1	6212	KIDASI	3	218	235	3	235	3	252	4	290			
1	6213	KEDARES	74	4875	5253	76	5253	78	5630	81	6469			
1	6214	MESANA	90	5894	6351	92	6351	94	6806	98	7821			

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1	6215	PRAITORI	89	5821	6273	91	6273	93	6272	96	7724	7724		
1	6216	FLOUSA (KELOKEDARON)	53	3493	3764	55	3764	56	4033	58	4634	4634		
1	6217	ARMINOI	53	3493	3764	55	3764	56	4033	58	4634	4634		
1	6218	AGIOS NIKOLAOS	104	6840	7370	107	7370	109	7896	113	9076	9076		
1	6219	AGIOS IOANNIS	54	3565	3842	56	3842	57	4117	59	4731	4731		
1	6220	AMARGETI	274	17973	19366	280	19366	286	20755	298	23948	23948		
1	6221	AGIA MARINA (KELOKEDARON)	54	3565	3842	56	3842	57	4117	59	4731	4731		
1	6222	PENTALIA	106	6985	7527	109	7527	111	8067	116	9269	9269		
1	6223	FALEIA	0	0	0	0	0	0	0	0	0	0		
1	6224	GALATARIA	89	5821	6273	91	6273	93	6722	96	7724	7724		
1	6225	KOILINEIA	59	3856	4156	60	4156	64	4453	64	5117	5117		
1	6226	VRETSIA	3	218	235	3	235	3	252	4	290	290		
1	6227	STATOS-AGIOS FOTIOS	385	25322	27286	395	27286	403	29241	420	33800	33800		
1	6228	LAPITHIOU	0	0	0	0	0	0	0	0	0	0		
1	6229	MAMOUNTALI	9	582	627	9	627	9	672	10	772	772		
1	6230	PANO PANAGIA	753	49480	53317	772	53317	788	57138	820	65654	65654		
1	6231	ASPROGIA	69	4511	4861	70	4861	72	5210	75	5986	5986		
1	6300	PSATHI	96	6330	6821	99	6821	101	7310	105	8400	8400		
1	6301	AGIOS DIMITRIANOS	113	7422	7997	116	7422	118	8571	123	9848	9848		
1	6302	KANNAVIOU	185	12152	13094	190	13094	193	14032	201	16124	16124		
1	6303	DRYNIA	76	5021	5410	78	5410	80	5798	83	6682	6682		
1	6304	MILIA	12	800	862	12	862	13	924	13	1062	1062		
1	6305	KRITOU MAROTTOU	91	5967	6429	93	6429	95	6890	99	7917	7917		
1	6306	FYTI	165	10842	11683	169	11683	173	12520	180	14386	14386		
1	6307	LASA	114	7495	8076	117	8076	119	8655	124	9945	9945		
1	6308	DRYMOU	123	8077	8703	126	8703	129	9327	134	10717	10717		
1	6310	SIMOU	217	14282	15368	223	15368	227	16469	236	18924	18924		
1	6311	ANADIOU	0	0	0	0	0	0	0	0	0	0		
1	6312	SARAMA	0	0	0	0	0	0	0	0	0	0		
1	6313	EVRETOU	0	0	0	0	0	0	0	0	0	0		
1	6314	TREMITHOUSA	0	0	0	0	0	0	0	0	0	0		
1	6315	FLOUSA(CHRYSOCHOUS)	72	4730	5096	74	5096	75	5462	78	6276	6276		
1	6316	ISTINTIO	0	0	0	0	0	0	0	0	0	0		
1	6317	ZACHARIA	0	0	0	0	0	0	0	0	0	0		
1	6318	MELADEIA	9	582	627	9	627	9	672	10	772	772		
1	6319	MELANDRA	0	0	0	0	0	0	0	0	0	0		
1	6320	LYSOS	230	15135	16309	236	16309	241	17478	251	20082	20082		
1	6321	PERISTERONA	257	16881	18190	263	18190	269	19494	280	22400	22400		
1	6330	THELETRA	225	14771	15917	231	15917	235	17057	245	19600	19600		
1	6331	GILOU	802	52681	56767	822	56767	839	60835	873	69903	69903		
1	6332	PANO AKOURDALEIA	35	2328	2509	36	2509	37	2689	39	3090	3090		
1	6333	MILIOU	72	4730	5096	74	5096	75	5462	78	6276	6276		
1	6334	KATO AKOURDALEIA	47	3056	3293	48	3293	49	3529	51	4055	4055		
1	6335	TERRA	12	800	862	12	862	13	924	13	1062	1062		
1	6336	KRITOU TERRA	182	11933	12859	186	12859	190	13780	198	15834	15834		
1	6337	SKOULLI	113	7422	7997	116	7997	118	8571	123	9848	9848		
1	6338	CHOLI	52	3420	3685	53	3685	54	3949	57	4538	4538		
1	6339	LOUKOUNOU	0	0	0	0	0	0	0	0	0	0		
1	6340	KARAMOULLIDES	13	873	941	14	941	14	1008	14	1159	1159		
1	6341	CHRYSOCHOU	117	7713	8311	120	8311	123	8907	128	10234	10234		
2	6343	POLIS	1387	108815	117253	1422	117253	1450	129657	1509	144386	144386		
2	6344	PRODROMI	0	0	0	0	0	0	0	0	0	0		
1	6345	NEO CHORIO	316	20738	22346	324	22346	330	23948	344	27517	27517		
1	6345	GOUDI	122	8004	8625	125	8625	127	9243	133	10621	10621		
1	6350	KATO ARODES	22	1455	1568	23	1568	23	1681	24	1931	1931		
1	6351	PANO ARODES	133	8732	9409	136	9409	139	10083	145	11586	11586		
1	6352	INEIA	425	27941	30108	436	30108	445	32266	463	37075	37075		

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Code	Village Code	Village Name	Year 2000		Year 2005		Year 2010		Year 2020	
			Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )	Population	Annual Water Demand (m <sup>3</sup> )
1	6353	DROUSEIA	428	28087	438	30265	447	32434	465	37268
1	6354	FASLI	0	0	0	0	0	0	0	0
1	6355	ANDROLIKOU	12	800	12	862	13	924	13	1062
1	6360	PELATHOUSA	49	3202	50	3450	51	3697	53	4248
1	6361	KINOUSA	84	5530	86	5959	88	6386	92	7338
1	6362	MAKOUNITA	38	2474	39	2866	39	2857	41	3283
1	6363	ARGAKA	779	51153	798	55120	814	59071	848	67875
1	6364	GIALIA	100	6549	102	7057	104	7562	108	8690
1	6365	AGIA MARINA	713	46860	731	50494	746	54113	776	62178
1	6366	NEA DIMMATA	54	3565	56	3842	57	4117	59	4731
1	6367	POMOS	636	41767	652	45006	665	48231	692	55420
1	6368	STENI	111	7276	114	7841	116	8403	121	9655
1	6369	AGIOS ISIDOROS	2	146	2	157	2	168	2	193
2	600005	ANAVARGOS	0	0	0	0	0	0	0	0
		<b>TOTAL</b>	<b>672647</b>	<b>50586336</b>	<b>696390</b>	<b>55091097</b>	<b>717484</b>	<b>59629769</b>	<b>757110</b>	<b>69530243</b>

**Note:** The above figures do not include:

- Water supplied to the Turks in Nicosia and Pyla
- Water demand in the occupied areas
- Water supplied to the British Bases

**Note:** The Column: Code identifies whether if the Row is treated as a Village (1) or as a City/Suburb (2) in the Calculation



## ANNEX 6-2

### POPULATION PROJECTION DETAILS

The population projection is based on the information obtained from the Statistical Department of the Ministry of Finance. The basis for such projection is the Census 1992 carried out on the 1<sup>st</sup> of October, the post evaluation survey carried out also on the 1<sup>st</sup> of October 1992, the projections made in 1993 for the years 1993 - 2008 and the demographic reports for the years 1993 - 1999.

A summary of the population based on the above is as follows:

- Population as per the 1<sup>st</sup> October 1992 census: **602025**.
- Population as per the post evaluation survey carried out on the 1<sup>st</sup> of October accounting for correction error 1.99% : **615013**.
- Population as per the demographic report carried out at the end of the year 1992 (accounting for the births and deaths for the period, 1<sup>st</sup> of October to the 31<sup>st</sup> of December 1992) : **619183**.

#### Estimated (projected) Population in the Government Controlled Areas

<u>Year</u>	<u>Population</u>
1992	619 183
1999	666 800
2000	672 647
2005	696 390
2010	717 484
2020	752 794

Demographic indicators for the Government controlled areas, show a reduction of the annual growth from 2.5% for the year 1990 to 1.1% in 1995 and 0.5% for the 1999. However the above figures may be on the low side since there are no accurate records of the Cypriot emigrants returning for permanent settlement in Cyprus and foreigners as well choosing Cyprus as their permanent residence.

<u>Year</u>	<u>Population in the Government Controlled Areas</u>	<u>Annual Growth*</u>
1992	619 183	2.7
1993	629 800	1.7
1994	638 300	1.3
1995	645 300	1.1
1996	651 800	1.0
1997	657 900	0.9
1998	663 300	0.8
1999	666 800	0.5

\*Source : Demographic report 1999 of the statistical Department

ANNEX 6-2

The 666 800 population in the Government controlled areas for 1999, was distributed as follows:

Rural areas	213 047
<u>Urban areas</u>	<u>453 753</u>
Total	666 800

The demographic reports for the Government controlled areas prepared by the Statistical Department are based on the census and then updated with the births and deaths of each year. The births are quite accurate and are received from the District officers where every new born child is registered. The deaths are of less accuracy and are received from queries made to the priests and the cemeteries. Due to the absence of accurate records of the emigrants returning or leaving Cyprus (the airport services do not keep any more records), the population growth estimated by the Statistical department is believed to be on the low side. However the accuracy of projection made in 1993 for the year 1999 is within a 1% error.

The annual growth is higher in the towns and urban areas, whereas for the rural areas is lower even negative.

**Annual Growth of Population %**

	<u>Urban Areas</u>		<u>Rural Areas</u>	
	<u>1998</u>	<u>1999</u>	<u>1998</u>	<u>1999</u>
<b>Lefkosia</b>	<b>0.9</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>
<b>Ammochostos</b>	<b>-</b>		<b>-</b>	
<b>Larnaca</b>	<b>1.2</b>	<b>0.9</b>	<b>0.2</b>	<b>-0.2</b>
<b>Lemesos</b>	<b>1.4</b>	<b>1.2</b>	<b>-1.9</b>	<b>-2.5</b>
<b>Pafos</b>	<b>2.6</b>	<b>2.0</b>	<b>-3.0</b>	<b>-3.3</b>

It is evident that urban areas have a higher growth rate than the rural areas and especially some isolated villages in the Lemessos and Pafos District where the population is reduced annually.

The big cities have greater opportunities for work and hence urbanization will continue.

Although during the last few years there was a trend for the expatriates to return for permanent residence in Cyprus, recent indications show that such trend is reversed.

On the other hand when Cyprus becomes member of the European Union, it is expected that more foreigners will choose to stay permanently in the island.

Similar growth rate seems to have the Turkish population, although a big number of Cypriot Turks (over 55,000) have left the island. On the other hand illegal settlers from Turkey have reached the figure of 115,000 excluding the Turkish troops which amounts to 35000 approximately.

**Population of Turkish Cypriot**

<b>1995</b>	<b>96 600</b>
<b>1996</b>	<b>89 200</b>
<b>1997</b>	<b>88 200</b>
<b>1998</b>	<b>88 200</b>
<b>1999</b>	<b>88 000</b>
<b>2000</b>	<b>88 000</b>

In 1999 the population of the whole island is estimated at 754,800 including the Turks i.e 668,800 within the Government controlled areas and 88,000 under the Turkish occupied areas. On the above figure are not included the Turkish troops and illegal settlers mentioned above.

**Population Projection By Village for the Period 1992 - 1999**

Although the Statistical services give the total population projection of the Government Controlled areas as a total figure and by district, however there no projection by village. In the demographic report of 1999 are given some projection figures by district separating the urban from the rural areas, for the 1997- 1999 years as shown above.

Based on these projections, it was distributed the population growth between 1992 to 1999 accounting greater annual growth for the urban areas and lower for the rural. The projected annual growth was different for each district as shown on the demographic report and was considered in the present study.

The 47617 difference in population between 1992 (619183) and 1999 (666800) was distributed by district as follows:

Lefkosia      40% of 47617 = 19332 (14112for urban and 5220 for rural)

Ammochostos 5.2% of 47617 = 2476 (zero for urban and 2476 for rural)

Larnaca      16.7% of 47617 = 7952 (4978 for urban and 2974 for rural)

Lemessos    28.9% of 47617 = 13761 (11270 for urban and 2491 for rural)

Pafos        8.6% of 47617 = 4095 (2842 for urban and 1253 for rural)

Thus the 47617 population increase between 1992 – 1999 was divided to 33236 urban and 14380 rural. However in order to bring the calculations in agreement with

ANNEX 6-2

those of the demographic report of 1999, the rural population was rounded to 15000.

The percentages are based on the analysis of the data given on the demographic report 1999 (page 58 Table 25).

In 1992 the urban population for the various Districts was taken as follows:

Lefkosia	: 178149 (Lefkosia Municipality and suburbs)
Lemesos	: 141020 (Lemesos Municipality and suburbs)
Larnaca	: 63520 (Larnaca Municipality and Suburbs)
Pafos	: 33365 (Pafos Municipality and suburbs)

Based on all the above information the annual growth taken for population projection which finally has been used for future domestic water demand is as follows:

<u>Year</u>	<u>Population growth %</u>	
	<u>Towns and Urban areas</u>	<u>Rural areas</u>
1999 – 2000	1.0	0.6
2000 – 2005	0.8	0.5
2005 - 2010	0.7	0.4
2010 – 2020	0.6	0.4



**ANNEX 6-3**

**POPULATION PROJECTION BY VILLAGE 1992-2020**

ANNEX 6-3

Hydrological Region	Sub-Watershed	Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
1	1	1	PAFOS	KHAROTAMI RIVER	5350	KATO PLATRES	133	137	146	147	151	154	160
1	1	1	PAFOS	KHAROTAMI RIVER	5328	MANDRA	107	110	118	119	121	124	129
1	1	2	PAFOS	KHAROTAMI RIVER	5330	OMODOS	386	407	436	439	450	459	477
1	1	3	PAFOS	KHAROTAMI RIVER	5329	POTAMIOU	50	51	55	57	57	58	60
1	1	3	PAFOS	KHAROTAMI RIVER	5323	KISSOUSIA	4	4	4	4	5	5	5
1	1	4	PAFOS	KHAROTAMI RIVER	5320	DORA	247	254	272	274	280	286	298
1	1	5	PAFOS	KHAROTAMI RIVER	5322	ARSOI	315	324	347	349	355	365	380
1	1	5	PAFOS	KHAROTAMI RIVER	5325	VASA (KOLANIOU)	174	179	192	193	198	202	210
1	1	5	PAFOS	KHAROTAMI RIVER	5324	MALIA	58	60	64	64	66	67	70
1	1	6	PAFOS	KHAROTAMI RIVER	6200	PANO ARCHIMANDRITA	71	73	78	79	81	82	86
1	2	1	PAFOS	DHIARIZOS RIVER	6201	MYLIKOURI	76	78	84	86	88	88	92
1	2	2	PAFOS	DHIARIZOS RIVER	5343	KAMINARIA	138	142	152	153	157	160	166
1	2	2	PAFOS	DHIARIZOS RIVER	5345	LEMITHOU	167	172	184	185	190	193	201
1	2	2	PAFOS	DHIARIZOS RIVER	5342	PRODOMOS	203	214	229	230	236	241	251
1	2	2	PAFOS	DHIARIZOS RIVER	5341	PALAMYLOS	33	34	36	37	37	38	40
1	2	2	PAFOS	DHIARIZOS RIVER	5344	TREIS ELIES	80	82	88	89	91	93	96
1	2	2	PAFOS	DHIARIZOS RIVER	5340	AGIOS DIMITRIOS	73	75	80	81	83	85	88
1	2	3	PAFOS	DHIARIZOS RIVER	5352	FOINI	574	574	614	618	634	646	673
1	2	4	PAFOS	DHIARIZOS RIVER	6217	ARMINOU	48	49	53	53	55	56	58
1	2	4	PAFOS	DHIARIZOS RIVER	6218	AGIOS NIKOLAOS	94	97	103	104	107	109	113
1	2	5	PAFOS	DHIARIZOS RIVER	6212	KIDASI	3	3	3	3	3	3	3
1	2	5	PAFOS	DHIARIZOS RIVER	6211	SALAMIOU	317	326	349	351	360	367	382
1	2	5	PAFOS	DHIARIZOS RIVER	6214	MESANA	81	83	89	90	92	94	98
1	2	5	PAFOS	DHIARIZOS RIVER	6216	FILOUSA (KELOKEDARON)	48	49	53	53	55	56	58
1	2	5	PAFOS	DHIARIZOS RIVER	6215	PRATORI	80	82	88	89	91	93	96
1	2	5	PAFOS	DHIARIZOS RIVER	6213	KEDARES	67	69	74	74	76	78	81
1	2	5	PAFOS	DHIARIZOS RIVER	5321	GEROVASA	3	3	3	3	3	3	3
1	2	6	PAFOS	DHIARIZOS RIVER	6206	STAUROKONOU	70	72	77	78	79	81	84
1	2	6	PAFOS	DHIARIZOS RIVER	6201	FASOULA	63	63	69	70	72	73	76
1	2	6	PAFOS	DHIARIZOS RIVER	6204	MAMONIA	52	53	57	58	59	60	63
1	2	6	PAFOS	DHIARIZOS RIVER	6203	AGIOS GEORGIOS	115	118	127	131	133	137	139
1	2	6	PAFOS	DHIARIZOS RIVER	6205	MARONAS	0	0	0	0	0	0	0
1	2	6	PAFOS	DHIARIZOS RIVER	6202	MOUSERE	0	0	0	0	0	0	0
1	2	6	PAFOS	DHIARIZOS RIVER	6207	PRASTIO	1	1	1	1	1	1	1
1	2	6	PAFOS	DHIARIZOS RIVER	6208	TRACHYPEDOUJA	108	111	119	120	123	125	130
1	2	7	PAFOS	DHIARIZOS RIVER	6102	NIKOLIEA	74	76	81	82	84	86	89
1	2	7	PAFOS	DHIARIZOS RIVER	6103	SOLSKIOU	0	0	0	0	0	0	0
1	2	8	PAFOS	DHIARIZOS RIVER	6100	KOLKIA	672	691	740	744	763	778	810
1	3	5	PAFOS	XEROPOTAMOS RIVER	6230	PANO PANAGIA	680	699	749	753	772	788	820
1	3	6	PAFOS	XEROPOTAMOS RIVER	6222	PENTALIA	96	99	106	106	109	111	116
1	3	6	PAFOS	XEROPOTAMOS RIVER	6234	GALATARIA	80	82	88	89	91	93	96
1	3	6	PAFOS	XEROPOTAMOS RIVER	6225	KOLINEIA	53	55	58	59	60	61	64
1	3	6	PAFOS	XEROPOTAMOS RIVER	6226	VREITSIA	3	3	3	3	3	3	4
1	3	6	PAFOS	XEROPOTAMOS RIVER	6219	AGIOS IOANNIS	49	50	54	54	56	57	59
1	3	7	PAFOS	XEROPOTAMOS RIVER	6221	AGIA MARIINA (KELOKEDARON)	44	49	54	54	56	57	59
1	3	7	PAFOS	XEROPOTAMOS RIVER	6210	KELOKEDARA	310	319	341	343	352	359	374
1	3	8	PAFOS	XEROPOTAMOS RIVER	6115	AXYLOU	49	50	54	54	56	57	59
1	3	8	PAFOS	XEROPOTAMOS RIVER	6116	ELEDIO	31	32	34	34	35	36	37
1	3	8	PAFOS	XEROPOTAMOS RIVER	6108	FOINIKAS	0	0	0	0	0	0	0
1	3	8	PAFOS	XEROPOTAMOS RIVER	6113	NATA	238	245	262	264	270	276	287
1	3	8	PAFOS	XEROPOTAMOS RIVER	6114	CHOLETRIA	249	256	274	276	283	288	300
1	3	9	PAFOS	XEROPOTAMOS RIVER	6106	AGIA VARVARA	51	52	56	56	58	59	61
1	3	9	PAFOS	XEROPOTAMOS RIVER	6104	TIMI	840	864	925	930	954	973	1013
1	3	9	PAFOS	XEROPOTAMOS RIVER	6015	PART OF AIRPORT TIMI	16	16	18	18	19	19	19
1	3	9	PAFOS	XEROPOTAMOS RIVER	6101	MANDRIA	417	429	459	462	473	483	503
1	3	9	PAFOS	XEROPOTAMOS RIVER	6107	ANARITA	327	336	360	362	371	379	394
1	4	3	PAFOS	EZOUSA RIVER	6231	ASPROGIA	62	64	68	69	70	72	75
1	4	4	PAFOS	EZOUSA RIVER	6301	AGIOS DIMITRIANOS	102	105	112	113	116	118	123
1	4	4	PAFOS	EZOUSA RIVER	6304	MILIA	11	11	12	12	12	13	13
1	4	4	PAFOS	EZOUSA RIVER	6305	KRITOU MAROTTOU	82	84	89	91	93	95	99
1	4	4	PAFOS	EZOUSA RIVER	6302	KANNAVIDOU	167	172	184	185	190	193	201
1	4	4	PAFOS	EZOUSA RIVER	6300	PSATHI	87	89	96	96	99	101	105

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Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
1	4	4	PAFOS	EZOUSA RIVER	6227	STATOS-AGIOS FOTIOS	348	363	385	395	403	420
1	4	4	PAFOS	EZOUSA RIVER	6228	LAPTHIOU	0	0	0	0	0	0
1	4	4	PAFOS	EZOUSA RIVER	6229	MAMOUNTALI	8	9	9	9	9	10
1	4	5	PAFOS	EZOUSA RIVER	6123	POLEMI	726	759	804	824	841	875
1	4	5	PAFOS	EZOUSA RIVER	6129	CHOULOU	269	266	238	305	312	324
1	4	5	PAFOS	EZOUSA RIVER	6127	KOURDAKA	0	0	0	0	0	0
1	4	5	PAFOS	EZOUSA RIVER	6125	LETYMOU	341	375	378	387	385	411
1	4	5	PAFOS	EZOUSA RIVER	6126	PIYARKOU	0	0	0	0	0	0
1	4	5	PAFOS	EZOUSA RIVER	6124	KALLEPEIA	231	276	278	285	291	303
1	4	6	PAFOS	EZOUSA RIVER	6128	LEMONA	99	109	110	112	115	119
1	4	6	PAFOS	EZOUSA RIVER	6223	FALEIA	0	0	0	0	0	0
1	4	7	PAFOS	EZOUSA RIVER	6220	ANARGRETI	247	272	274	280	286	298
1	4	7	PAFOS	EZOUSA RIVER	6112	EPISKOPI	257	283	285	292	298	310
1	4	8	PAFOS	EZOUSA RIVER	6110	MARATHOUMTA	226	249	250	257	262	272
1	4	9	PAFOS	EZOUSA RIVER	6013	KOLONI	200	220	222	232	241	241
1	4	9	PAFOS	EZOUSA RIVER	6012	AGIA MARINOUDA	93	102	103	106	108	112
1	4	9	PAFOS	EZOUSA RIVER	6014	ACHELEIA	74	81	82	84	86	89
1	4	9	PAFOS	EZOUSA RIVER	6016	INDUSTRIAL AREA ANATOLIKO	15	17	17	17	17	18
1	5	1	PAFOS	KTIMA AREA	6010	GEROSKIPOU	4156	4639	4685	4875	5048	5360
1	5	2	PAFOS	KTIMA AREA	6024	MESA CHORIO	276	308	311	324	335	356
1	5	2	PAFOS	KTIMA AREA	6000/5	ANAVARGOS	0	0	0	0	0	0
1	5	2	PAFOS	KTIMA AREA	6011	KONIA	588	656	663	690	714	758
1	5	2	PAFOS	KTIMA AREA	6111	ARMOU	275	307	310	323	334	355
1	5	3	PAFOS	KTIMA AREA	6000	PAFOS MUNICIPALITY	19462	21711	21928	22819	23629	25085
1	5	3	PAFOS	KTIMA AREA	6000	PAFOS e	0	0	0	0	0	0
1	5	4	PAFOS	KTIMA AREA	6000	PAFOS w	0	0	0	0	0	0
1	5	4	PAFOS	KTIMA AREA	6023	TRIMITHOUSA	393	439	443	461	477	507
1	5	6	PAFOS	KTIMA AREA	6025	MESOGI	1061	1184	1186	1245	1269	1368
1	5	6	PAFOS	KTIMA AREA	6020	CHLORAKAS	2032	2288	2291	2464	2468	2620
1	5	6	PAFOS	KTIMA AREA	6028	MMA CORAL BAY	122	136	138	143	148	157
1	5	6	PAFOS	KTIMA AREA	6022	EMPA	2069	2128	2332	2427	2513	2668
1	5	7	PAFOS	KTIMA AREA	6026	TALA	730	815	823	856	887	941
1	5	7	PAFOS	KTIMA AREA	6027	KISSONERGA	1092	1219	1231	1281	1326	1408
1	5	7	PAFOS	KTIMA AREA	6021	LEMPA	194	219	220	228	236	250
1	6	1	PAFOS	MAVROKOLYMBOS RIVER	6122	STROUMPI	486	535	538	552	563	586
1	6	1	PAFOS	MAVROKOLYMBOS RIVER	6120	TSADA	672	691	740	763	778	810
1	6	1	PAFOS	MAVROKOLYMBOS RIVER	6121	KOILI	277	305	307	315	321	334
1	6	1	PAFOS	MAVROKOLYMBOS RIVER	6029	PART OF KOILI	12	13	13	14	14	14
1	6	3	PAFOS	MAVROKOLYMBOS RIVER	6130	AKOYRSOS	48	53	53	55	56	58
1	7	1	PAFOS	PEVIA AREA	6133	PEGEIA	1551	1708	1718	1761	1797	1870
1	7	5	PAFOS	AVGAS RIVER	6132	KATHIKAS	386	425	428	438	447	465
1	8	1	PAFOS	AVGAS RIVER	6351	PANO ARODES	120	132	133	136	139	145
1	8	2	PAFOS	AVGAS RIVER	6353	DROUSEIA	386	425	428	438	447	465
1	8	2	PAFOS	AVGAS RIVER	6352	INEIA	384	423	425	436	445	463
1	8	2	PAFOS	AVGAS RIVER	6350	KATO ARODES	20	22	22	23	23	24
2	1	5	TYLLIRIA	EAST AKAMAS AREA	6344	NEO CHORIO	285	293	316	324	330	344
2	1	6	TYLLIRIA	EAST AKAMAS AREA	6355	ANDROLIKOU	11	12	12	12	13	13
2	1	8	TYLLIRIA	EAST AKAMAS AREA	6354	FASLI	0	0	0	0	0	0
2	2	1	TYLLIRIA	CHRYSSOCHOU RIVER	6307	LASA	103	113	114	117	119	124
2	2	1	TYLLIRIA	CHRYSSOCHOU RIVER	6303	DRYINIA	69	76	76	78	80	83
2	2	2	TYLLIRIA	CHRYSSOCHOU RIVER	6330	THELETRA	203	223	225	231	235	245
2	2	2	TYLLIRIA	CHRYSSOCHOU RIVER	6331	GILOU	724	797	802	822	839	873
2	2	2	TYLLIRIA	CHRYSSOCHOU RIVER	6333	MILIOU	65	67	74	74	75	78
2	2	2	TYLLIRIA	CHRYSSOCHOU RIVER	6308	DRYMOU	111	122	123	126	129	134
2	2	3	TYLLIRIA	CHRYSSOCHOU RIVER	6332	PANO AKOURDALEIA	32	35	35	36	37	39
2	2	3	TYLLIRIA	CHRYSSOCHOU RIVER	6354	KATO AKOURDALEIA	42	46	47	48	49	51
2	2	3	TYLLIRIA	CHRYSSOCHOU RIVER	6339	LOUKKOUNDO	0	0	0	0	0	0
2	2	3	TYLLIRIA	CHRYSSOCHOU RIVER	6336	KRITOU TERA	164	181	182	186	190	198
2	2	3	TYLLIRIA	CHRYSSOCHOU RIVER	6335	TERRA	11	12	12	12	13	13
2	2	5	TYLLIRIA	CHRYSSOCHOU RIVER	6319	MELANDRA	0	0	0	0	0	0
2	2	5	TYLLIRIA	CHRYSSOCHOU RIVER	6317	ZACHARIA	0	0	0	0	0	0
2	2	6	TYLLIRIA	CHRYSSOCHOU RIVER	6316	ISTINTIO	0	0	0	0	0	0
2	2	6	TYLLIRIA	CHRYSSOCHOU RIVER	6368	STENI	100	110	111	114	116	121
2	2	6	TYLLIRIA	CHRYSSOCHOU RIVER	6321	PERISTERONA	232	255	257	263	269	280

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Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6318	MELADEIA	8	9	9	9	9	10
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6320	LYSOS	208	229	230	236	241	251
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6315	FILOUSACHRYSOCHOUS	214	72	72	74	75	78
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6314	TREMIHOUSA	65	0	0	0	0	0
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6313	EVIRETOU	0	0	0	0	0	0
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6312	SARAMA	0	0	0	0	0	0
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6310	SMOU	186	216	217	223	227	236
2	2	6	TYLLIRIA	CHRYSOCHOU RIVER	6306	PTITI	149	64	65	69	73	80
2	2	7	TYLLIRIA	CHRYSOCHOU RIVER	6336	CHOLI	47	52	53	53	54	57
2	2	7	TYLLIRIA	CHRYSOCHOU RIVER	6337	SKOULLI	102	112	113	116	118	123
2	2	7	TYLLIRIA	CHRYSOCHOU RIVER	6345	GOUDI	110	121	121	125	127	133
2	2	7	TYLLIRIA	CHRYSOCHOU RIVER	6340	KARAMOULLIDES	12	13	13	14	14	14
2	2	7	TYLLIRIA	CHRYSOCHOU RIVER	6341	CHRYSOCHOU	106	117	117	120	123	128
2	2	8	TYLLIRIA	CHRYSOCHOU RIVER	6343	PRODROMI	0	0	0	0	0	0
2	2	8	TYLLIRIA	CHRYSOCHOU RIVER	6343	POLIS	1252	1378	1387	1422	1450	1509
2	3	1	TYLLIRIA	MAKOUNTA AREA	6369	AGIOS ISIDOROS	2	2	2	2	2	2
2	3	2	TYLLIRIA	MAKOUNTA AREA	6360	PELATHOUSA	44	48	49	50	51	53
2	3	2	TYLLIRIA	MAKOUNTA AREA	6362	MAKOUNTA	34	37	38	39	39	41
2	3	4	TYLLIRIA	MAKOUNTA AREA	6361	KINOUSA	76	84	84	86	88	92
2	3	5	TYLLIRIA	MAKOUNTA AREA	6363	ARGAKA	703	774	779	798	814	848
2	3	6	TYLLIRIA	MAKOUNTA AREA	6364	GIALIA	90	99	100	102	104	108
2	4	1	TYLLIRIA	LIVADI AREA	6365	AGIA MARINA	644	709	713	731	746	776
2	4	2	TYLLIRIA	LIVADI AREA	6366	NEA DIMIATA	49	54	54	56	57	59
2	4	7	TYLLIRIA	LIVADI AREA	6367	POMOS	574	632	636	652	665	692
2	5	1	TYLLIRIA	KOKKINA AREA	1461	PACHYMMIOS	134	143	144	148	151	157
2	5	2	TYLLIRIA	KOKKINA AREA	1459	ALEVA	0	0	0	0	0	0
2	5	2	TYLLIRIA	KOKKINA AREA	1454	KOKKINA	0	0	0	0	0	0
2	5	3	TYLLIRIA	KOKKINA AREA	1458	SELLADI TOU APPI(AND AGIOEORGOUDI)	0	0	0	0	0	0
2	5	4	TYLLIRIA	KOKKINA AREA	1462	AGIOS THEODOROS	27	30	30	31	31	33
2	5	4	TYLLIRIA	KOKKINA AREA	1460	PIGENIA	195	215	216	221	226	235
2	5	4	TYLLIRIA	KOKKINA AREA	1460	HALERI	0	0	0	0	0	0
2	5	4	TYLLIRIA	KOKKINA AREA	1462	MOSFILERI (AG. THEODOROS)	0	0	0	0	0	0
2	5	5	TYLLIRIA	KATOURIS RIVER	6311	ANADIOU	0	0	0	0	0	0
2	6	4	TYLLIRIA	KATOURIS RIVER	1456	PANO PYRGOS	39	43	43	44	45	47
2	7	1	TYLLIRIA	PYRGOS RIVER	1455	FRODISIAVROISIA	0	0	0	0	0	0
2	7	3	TYLLIRIA	PYRGOS RIVER	1454	AGIOS IOANNIS SELEMANI	1155	1272	1279	1311	1338	1392
2	7	4	TYLLIRIA	PYRGOS RIVER	1457	KATO PYRGOS	0	0	0	0	0	0
2	8	4	TYLLIRIA	LIMNITIS RIVER	1455	AIMADIES	0	0	0	0	0	0
2	8	4	TYLLIRIA	LIMNITIS RIVER	1452	XEROVOUNOS	0	0	0	0	0	0
2	8	4	TYLLIRIA	LIMNITIS RIVER	1452	LIMNITIS	0	0	0	0	0	0
2	8	5	TYLLIRIA	LIMNITIS RIVER	1453	LOUTROS	0	0	0	0	0	0
2	8	5	TYLLIRIA	LIMNITIS RIVER	1451	GALINI	0	0	0	0	0	0
2	9	1	TYLLIRIA	KAMPOS RIVER	1426	TSAKISTRA	136	150	151	154	158	164
2	9	1	TYLLIRIA	KAMPOS RIVER	1427	KAMPOS	557	613	617	632	645	671
2	9	2	TYLLIRIA	KAMPOS RIVER	1450	VARELSIA	0	0	0	0	0	0
3	1	2	MORPHOU	XEROS RIVER	1439	XEROS	0	0	0	0	0	0
3	1	4	MORPHOU	XEROS RIVER	1439	KARAVOSTASI	0	0	0	0	0	0
3	1	4	MORPHOU	XEROS RIVER	1436	AMPELIKOU	0	0	0	0	0	0
3	2	1	MORPHOU	MARATHAS RIVER	1423	OKOS	213	234	236	242	247	257
3	2	1	MORPHOU	MARATHAS RIVER	1424	KALOPANAGIOTIS	328	361	361	372	380	395
3	2	1	MORPHOU	MARATHAS RIVER	1422	MOUTOULAS	401	441	444	455	465	483
3	2	2	MORPHOU	MARATHAS RIVER	1420	PEDOULAS	293	323	325	333	339	353
3	2	2	MORPHOU	MARATHAS RIVER	1425	GERAKIES	168	185	186	191	195	203
3	2	4	MORPHOU	MARATHAS RIVER	1435	LEFKA	0	0	0	0	0	0
3	2	4	MORPHOU	MARATHAS RIVER	1433	KALON CHORION LEFKA	0	0	0	0	0	0
3	2	4	MORPHOU	MARATHAS RIVER	1437	PERISTERONARI	0	0	0	0	0	0
3	3	3	MORPHOU	KARYOTIS RIVER	1409	TEMVRIA	643	708	712	730	745	775
3	3	3	MORPHOU	KARYOTIS RIVER	1408	KALIANA	227	233	251	258	263	274
3	3	3	MORPHOU	KARYOTIS RIVER	1407	SINAOROS	228	234	253	259	264	275
3	3	3	MORPHOU	KARYOTIS RIVER	1406	GALATA	769	847	852	873	891	927
3	3	3	MORPHOU	KARYOTIS RIVER	1404	KAPOPETRIA	1251	1287	1366	1420	1449	1508
3	3	4	MORPHOU	KARYOTIS RIVER	1416	KATYDATA	203	223	225	231	235	245
3	3	4	MORPHOU	KARYOTIS RIVER	1414	AGIOS EPIFANIOS	0	0	0	0	0	0
3	3	4	MORPHOU	KARYOTIS RIVER	1412	KATO FLASOU	262	268	290	297	303	316

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Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
3	3	4	MORPHOU	KARYOTIS RIVER	1413	PANO FLASOU	34	35	37	38	39	39	41
3	3	4	MORPHOU	KARYOTIS RIVER	1410	KORAKOU	564	601	643	647	663	676	704
3	3	5	MORPHOU	KARYOTIS RIVER	1431	AGIOS GEORGIOS	0	0	0	0	0	0	0
3	3	5	MORPHOU	KARYOTIS RIVER	1430	AGIOS NIKOLAOS	0	0	0	0	0	0	0
3	3	5	MORPHOU	KARYOTIS RIVER	1417	SKOURIOTISSA	13	13	14	14	15	15	16
3	3	5	MORPHOU	KARYOTIS RIVER	1411	EVRUCHOU	876	901	964	970	995	1015	1056
3	4	1	MORPHOU	ATSAS RIVER	1400	SPILA	181	186	199	200	206	210	218
3	4	2	MORPHOU	ATSAS RIVER	1406	AGIOS THEODOROS	102	103	12	13	16	18	123
3	4	3	MORPHOU	ATSAS RIVER	1432	PETRA	0	0	0	0	0	0	0
3	4	3	MORPHOU	ATSAS RIVER	1415	LINOI	237	244	261	262	269	275	286
3	4	4	MORPHOU	ATSAS RIVER	1441	PENTAGEIA	0	0	0	0	0	0	0
3	5	1	MORPHOU	ELEA RIVER	1306	SARANTI	63	65	69	70	72	73	76
3	5	1	MORPHOU	ELEA RIVER	1305	LAGOUDERA	188	193	207	208	213	218	227
3	5	1	MORPHOU	ELEA RIVER	1320	XYLIATOS	136	140	150	151	154	158	164
3	5	2	MORPHOU	ELEA RIVER	1402	AGIA ERINI	51	52	56	56	58	59	61
3	5	2	MORPHOU	ELEA RIVER	1403	KANNAVA	182	187	200	202	207	211	219
3	5	2	MORPHOU	ELEA RIVER	1321	AGIOS GEORGIOS KAFK	4	4	4	4	5	5	5
3	5	3	MORPHOU	ELEA RIVER	1323	VYZAKIA	403	414	444	446	458	467	486
3	5	4	MORPHOU	ELEA RIVER	1322	NIKITARI	442	455	487	490	502	512	533
3	5	4	MORPHOU	ELEA RIVER	1328	PANO KOUTRAFAS	0	0	0	0	0	0	0
3	5	4	MORPHOU	ELEA RIVER	1329	KATO KOUTRAFAS	30	31	33	33	34	35	36
3	5	6	MORPHOU	ELEA RIVER	1443	AGKOLEMI	0	0	0	0	0	0	0
3	5	7	MORPHOU	ELEA RIVER	1438	ELIA	0	0	0	0	0	0	0
3	6	1	MORPHOU	KOMITIS RIVER	1352	KAZIVERA	0	0	0	0	0	0	0
3	6	1	MORPHOU	KOMITIS RIVER	1353	PRASITION MORFOU	0	0	0	0	0	0	0
3	6	1	MORPHOU	KOMITIS RIVER	1354	NIKITAS	0	0	0	0	0	0	0
3	6	2	MORPHOU	KOMITIS RIVER	1350	POTAMI	541	556	596	599	614	627	662
3	6	3	MORPHOU	KOMITIS RIVER	1382	ASTROMERITIS	2325	2391	2560	2575	2640	2693	2803
3	6	3	MORPHOU	KOMITIS RIVER	1350	PANO ZOBEIA	0	0	0	0	0	0	0
3	6	3	MORPHOU	KOMITIS RIVER	1351	KATO ZOBEIA	0	0	0	0	0	0	0
3	6	4	MORPHOU	KOMITIS RIVER	1340	MORFOU	0	0	0	0	0	0	0
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1301	ASKAS	238	245	262	264	270	276	287
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1300	PALACHORI MORFOU	831	855	915	920	944	963	1002
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1303	FTERIKOUDI	167	184	184	185	190	193	201
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1309	PLATANISTASA	201	207	228	223	233	232	242
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1310	PALACHORI ORINIS	446	459	491	494	506	517	538
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1302	ALOANA	189	194	208	209	215	219	228
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1304	POLYSTYPOS	256	263	282	284	291	297	309
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1307	LIVADIA	23	24	25	25	26	27	28
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1308	ALITHINOI	12	12	13	13	14	14	14
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1324	AGIA MARINA	607	624	669	672	703	703	732
3	7	1	MORPHOU	OVGOS-SERRAKHIS RIVER	1361	PERISTERONA	2279	2344	2509	2524	2588	2640	2747
3	7	2	MORPHOU	OVGOS-SERRAKHIS RIVER	1271	OROUNTA	688	708	757	762	781	797	829
3	7	2	MORPHOU	OVGOS-SERRAKHIS RIVER	1212	AGROKIPIA	392	403	432	434	445	454	473
3	7	2	MORPHOU	OVGOS-SERRAKHIS RIVER	1213	MITSERO	684	703	753	758	777	792	825
3	7	2	MORPHOU	OVGOS-SERRAKHIS RIVER	1325	AGIOI ILIOFOTOI	0	0	0	0	0	0	0
3	7	2	MORPHOU	OVGOS-SERRAKHIS RIVER	1326	KATO MONI	303	312	334	336	344	351	365
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1202	ALIKI	104	107	114	115	118	120	125
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1200	KAMPI	126	130	139	140	143	146	152
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1201	FARNAKAS	541	556	586	589	614	627	652
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1204	GOURRI	241	248	265	267	274	279	291
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1206	AGIOS EPIFANIOS	352	362	388	390	400	408	424
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1207	KALON CHORION	514	529	566	569	584	595	620
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1208	KLIROU	1455	1496	1602	1611	1652	1685	1754
3	7	3	MORPHOU	OVGOS-SERRAKHIS RIVER	1209	MALOUNTA	319	328	351	353	362	370	385
3	7	4	MORPHOU	OVGOS-SERRAKHIS RIVER	1211	AGIOS IOANNIS	376	387	414	416	427	436	453
3	7	4	MORPHOU	OVGOS-SERRAKHIS RIVER	1368	MENIKO	946	973	1041	1048	1074	1096	1140
3	7	5	MORPHOU	OVGOS-SERRAKHIS RIVER	1205	FIKARDOU	8	8	9	9	9	9	10
3	7	5	MORPHOU	OVGOS-SERRAKHIS RIVER	1210	AREDIOU	971	989	1069	1075	1103	1125	1171
3	7	5	MORPHOU	OVGOS-SERRAKHIS RIVER	1360	AKAKI	2372	2440	2627	2632	2693	2748	2860
3	7	5	MORPHOU	OVGOS-SERRAKHIS RIVER	1241	PALAMETOCHO	3540	3641	3897	3921	3921	4101	4268
3	7	5	MORPHOU	OVGOS-SERRAKHIS RIVER	1243	KOKKINOTRIMITHIA	2639	2714	2905	2923	2997	3057	3181
3	7	5	MORPHOU	OVGOS-SERRAKHIS RIVER	1363	AVLONA	0	0	0	0	0	0	0
3	7	5	MORPHOU	OVGOS-SERRAKHIS RIVER	1240	AGIOI TRIMITHIAS	1131	1163	1245	1253	1284	1310	1363

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Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
3	7	6	MORFOU	OVGOS-SERRAKHIS RIVER	1244	MAMMARI	1043	1116	1123	1151	1175	1222
3	7	7	MORFOU	OVGOS-SERRAKHIS RIVER	1247	SKYLLOURA	0	0	0	0	0	0
3	7	7	MORFOU	OVGOS-SERRAKHIS RIVER	1248	AGIOS VASILEIOS	0	0	0	0	0	0
3	7	7	MORFOU	OVGOS-SERRAKHIS RIVER	2120	AGIOS ERMOLAOS	0	0	0	0	0	0
3	7	7	MORFOU	OVGOS-SERRAKHIS RIVER	2121	SYSKLIPOS	0	0	0	0	0	0
3	7	7	MORFOU	OVGOS-SERRAKHIS RIVER	2112	PILERI	0	0	0	0	0	0
3	7	7	MORFOU	OVGOS-SERRAKHIS RIVER	1246	PROFITIS ELIAS (SKYLLOURAS)	0	0	0	0	0	0
3	7	8	MORFOU	OVGOS-SERRAKHIS RIVER	1242	DENIA	231	248	249	255	261	271
3	7	8	MORFOU	OVGOS-SERRAKHIS RIVER	1357	FTILIA	0	0	0	0	0	0
3	7	8	MORFOU	OVGOS-SERRAKHIS RIVER	1357	KYTRA	0	0	0	0	0	0
3	7	9	MORFOU	OVGOS-SERRAKHIS RIVER	1355	SYRIANOCHORI	0	0	0	0	0	0
3	7	9	MORFOU	OVGOS-SERRAKHIS RIVER	1364	KATOKOPIA	0	0	0	0	0	0
3	7	9	MORFOU	OVGOS-SERRAKHIS RIVER	1365	ARGAKI	0	0	0	0	0	0
3	7	9	MORFOU	OVGOS-SERRAKHIS RIVER	1366	MASARI	0	0	0	0	0	0
3	8	1	MORFOU	ALOUPOS RIVER	1246	AGIA MARINA	0	0	0	0	0	0
3	8	1	MORFOU	ALOUPOS RIVER	2122	KONTEMENOS	0	0	0	0	0	0
3	8	1	MORFOU	ALOUPOS RIVER	2123	ASOMATOS	0	0	0	0	0	0
3	8	1	MORFOU	ALOUPOS RIVER	2124	KAMPYLI	0	0	0	0	0	0
3	8	1	MORFOU	ALOUPOS RIVER	2125	KARPASEIA	0	0	0	0	0	0
3	8	2	MORFOU	ALOUPOS RIVER	2126	DIO POTAMOI	0	0	0	0	0	0
3	8	2	MORFOU	ALOUPOS RIVER	2126	MYRTOU	0	0	0	0	0	0
3	8	3	MORFOU	ALOUPOS RIVER	1357	KALON CHORION MORFO	0	0	0	0	0	0
3	9	1	MORFOU	AGIA EIRINI AREA	2127	DIORIOS	0	0	0	0	0	0
3	9	2	MORFOU	AGIA EIRINI AREA	2128	AGIA IIRINI	0	0	0	0	0	0
3	9	4	MORFOU	AGIA EIRINI AREA	2129	KORMAKTIS	0	0	0	0	0	0
4	1	4	KERYNEIA	ORGA AREA	2226	ORGA	0	0	0	0	0	0
4	2	1	KERYNEIA	PANAGRA RIVER	2130	LIVERAS	0	0	0	0	0	0
4	2	2	KERYNEIA	PANAGRA RIVER	2220	AGRIDAKI	0	0	0	0	0	0
4	2	2	KERYNEIA	PANAGRA RIVER	2224	PANAGRA	0	0	0	0	0	0
4	2	2	KERYNEIA	PANAGRA RIVER	2221	LARWAKA LAPITHOU	0	0	0	0	0	0
4	3	1	KERYNEIA	LAPITHOS-KARAVAS AREA	2223	VASILEIA	0	0	0	0	0	0
4	3	2	KERYNEIA	LAPITHOS-KARAVAS AREA	2222	LAPITHOS MUNICIPALITY	0	0	0	0	0	0
4	3	3	KERYNEIA	LAPITHOS-KARAVAS AREA	2217	KARAVAS	0	0	0	0	0	0
4	3	3	KERYNEIA	LAPITHOS-KARAVAS AREA	2214	PALAIOSOFOS	0	0	0	0	0	0
4	3	4	KERYNEIA	LAPITHOS-KARAVAS AREA	2215	MOTIDES	0	0	0	0	0	0
4	3	4	KERYNEIA	LAPITHOS-KARAVAS AREA	2216	ELIA	0	0	0	0	0	0
4	3	4	KERYNEIA	LAPITHOS-KARAVAS AREA	2212	FTERICHA	0	0	0	0	0	0
4	3	5	KERYNEIA	LAPITHOS-KARAVAS AREA	2211	KARMI	0	0	0	0	0	0
4	3	6	KERYNEIA	LAPITHOS-KARAVAS AREA	2213	TRIMITHI	0	0	0	0	0	0
4	3	6	KERYNEIA	LAPITHOS-KARAVAS AREA	2120	AGIOS GEORGIOS	0	0	0	0	0	0
4	4	1	KERYNEIA	KERYNEIA AREA	2210	TEMPLOS	0	0	0	0	0	0
4	4	1	KERYNEIA	KERYNEIA AREA	2000	KYRENEIA	0	0	0	0	0	0
4	4	2	KERYNEIA	KERYNEIA AREA	2208	THERMEIA	0	0	0	0	0	0
4	4	2	KERYNEIA	KERYNEIA AREA	2209	KARAKOLIMI	0	0	0	0	0	0
4	4	3	KERYNEIA	KERYNEIA AREA	2207	KAZAFANI	0	0	0	0	0	0
4	4	3	KERYNEIA	KERYNEIA AREA	2206	BELLAPALS	0	0	0	0	0	0
4	4	4	KERYNEIA	KERYNEIA AREA	2205	AGIOS EPIKITITOS	0	0	0	0	0	0
4	4	6	KERYNEIA	KERYNEIA AREA	2204	KLEPINI	0	0	0	0	0	0
4	5	2	KERYNEIA	KLEPINI-CHARRKEIA AREA	2203	TRAPEZA	0	0	0	0	0	0
4	5	5	KERYNEIA	KLEPINI-CHARRKEIA AREA	2202	CHARRKEIA	0	0	0	0	0	0
4	5	7	KERYNEIA	KLEPINI-CHARRKEIA AREA	2201	AGIOS AMVROSIOS	0	0	0	0	0	0
4	6	1	KERYNEIA	AGIOS AMVROSIOS AREA	2200	KALOGRAHIA	0	0	0	0	0	0
4	7	2	KERYNEIA	AKANTHOU AREA	3304	AKANTHOU	0	0	0	0	0	0
4	7	5	KERYNEIA	AKANTHOU AREA	3328	DAVLOS	0	0	0	0	0	0
4	8	2	KERYNEIA	FLAMOUDI AREA	3314	FLAMOUDI	0	0	0	0	0	0
5	1	1	KARPAS	PLATANISSO AREA	3346	PLATANISSOS	0	0	0	0	0	0
5	1	3	KARPAS	PLATANISSO AREA	3347	KOILANEMOS	0	0	0	0	0	0
5	2	1	KARPAS	AGIALOUSA AREA	3348	AGIOS ANDRONIKOS	0	0	0	0	0	0
5	2	1	KARPAS	AGIALOUSA AREA	3351	MELANARGA	0	0	0	0	0	0
5	2	2	KARPAS	AGIALOUSA AREA	3352	AGIALOUSA	0	0	0	0	0	0
5	2	2	KARPAS	AGIALOUSA AREA	3353	AGIA TRIAS	0	0	0	0	0	0
5	3	4	KARPAS	RIZOKARPASO AREA	3356	RIZOKARPASO	0	0	0	0	0	0
5	5	5	KARPAS	GALINOPORNI	3355	GALINOPORNI	0	0	0	0	0	0
5	5	6	KARPAS	GALINOPORNI	3354	KOROVEIA	0	0	0	0	0	0

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Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
5	5	9	KARPAS	GALINOPORNI	3350	AGIOS SYMEON	0	0	0	0	0	0
5	6	1	KARPAS	LYTHRANGOMI AREA	3341	NETA	0	0	0	0	0	0
5	6	2	KARPAS	LYTHRANGOMI AREA	3345	LEONARISOS	0	0	0	0	0	0
5	6	2	KARPAS	LYTHRANGOMI AREA	3344	VASILI	0	0	0	0	0	0
5	6	2	KARPAS	LYTHRANGOMI AREA	3343	LYTHRAGKOMI	0	0	0	0	0	0
5	6	2	KARPAS	LYTHRANGOMI AREA	3342	NOTHAYLAKAS	0	0	0	0	0	0
5	7	2	KARPAS	KOMA TOU GALOU AREA	3338	ETAKOMI	0	0	0	0	0	0
5	7	2	KARPAS	KOMA TOU GALOU AREA	3337	ETAKOMI	0	0	0	0	0	0
5	7	2	KARPAS	KOMA TOU GALOU AREA	3340	GALATEIA	0	0	0	0	0	0
5	7	2	KARPAS	KOMA TOU GALOU AREA	3340	KOMA TOU GALOU	0	0	0	0	0	0
5	8	1	KARPAS	AGIOS THEODOROS AREA	3324	AVGOLIDA	0	0	0	0	0	0
5	8	2	KARPAS	AGIOS THEODOROS AREA	3335	KRIDEIA	0	0	0	0	0	0
5	8	3	KARPAS	AGIOS THEODOROS AREA	3323	GASTRIA	0	0	0	0	0	0
5	8	3	KARPAS	AGIOS THEODOROS AREA	3325	PATRIKI	0	0	0	0	0	0
5	8	5	KARPAS	AGIOS THEODOROS AREA	3330	AGIOS THEODOROS	0	0	0	0	0	0
5	8	5	KARPAS	AGIOS THEODOROS AREA	3333	AGIOS EFSTATHIOS	0	0	0	0	0	0
5	8	5	KARPAS	AGIOS THEODOROS AREA	3336	KOMI KEPH	0	0	0	0	0	0
5	8	6	KARPAS	AGIOS THEODOROS AREA	3334	LIVADIA	0	0	0	0	0	0
5	8	6	KARPAS	AGIOS THEODOROS AREA	3331	VOKOLIDA	0	0	0	0	0	0
5	8	6	KARPAS	AGIOS THEODOROS AREA	3332	TAVROU	0	0	0	0	0	0
5	9	1	KARPAS	BOGAZI AREA	3136	TRIKOMO	0	0	0	0	0	0
5	9	1	KARPAS	BOGAZI AREA	3311	AGIOS ANDRONIKOS	0	0	0	0	0	0
5	9	2	KARPAS	BOGAZI AREA	3133	PERIVOLIA TOU TRIKOMOU	0	0	0	0	0	0
5	9	3	KARPAS	BOGAZI AREA	3320	BOGAZI	0	0	0	0	0	0
5	9	3	KARPAS	BOGAZI AREA	3321	MONARGA	0	0	0	0	0	0
5	9	3	KARPAS	BOGAZI AREA	3322	AGIOS ILIAS	0	0	0	0	0	0
5	9	3	KARPAS	BOGAZI AREA	3313	ABDANA	0	0	0	0	0	0
5	9	4	KARPAS	BOGAZI AREA	3326	GERANI	0	0	0	0	0	0
5	9	4	KARPAS	BOGAZI AREA	3327	OVGOROS	0	0	0	0	0	0
6	1	1	MESSAORIA	PEDEIOS RIVER	1233	LAZANIA	24	25	25	26	27	28
6	1	1	MESSAORIA	PEDEIOS RIVER	1223	KAMBIA	373	411	413	424	432	450
6	1	2	MESSAORIA	PEDEIOS RIVER	1010	AGIOS DOMETIOS	1262	13450	13584	14136	14638	15540
6	1	2	MESSAORIA	PEDEIOS RIVER	1011	EKGOMI	10225	11035	11146	11599	12010	12751
6	1	2	MESSAORIA	PEDEIOS RIVER	1012	STROVOLOS	52867	57162	57734	60081	62213	66048
6	1	2	MESSAORIA	PEDEIOS RIVER	1021	LAKATAMEIA MUNICIPALITY	21529	23334	23466	24420	25287	26846
6	1	2	MESSAORIA	PEDEIOS RIVER	1231	ANAEGIA	983	1082	1089	1116	1139	1185
6	1	2	MESSAORIA	PEDEIOS RIVER	1232	PANO DEFTERA	1756	1933	1945	1984	2034	2117
6	1	2	MESSAORIA	PEDEIOS RIVER	1239	PSIMOLOFOU	1120	1152	1240	1272	1297	1350
6	1	2	MESSAORIA	PEDEIOS RIVER	1230	ERGATES	1418	1458	1570	1610	1643	1709
6	1	2	MESSAORIA	PEDEIOS RIVER	1228	EPISKOPPIO	452	465	501	513	524	545
6	1	2	MESSAORIA	PEDEIOS RIVER	1226	POLITHKO	336	370	346	362	369	405
6	1	2	MESSAORIA	PEDEIOS RIVER	1227	PERA	940	1035	1041	1067	1089	1133
6	1	2	MESSAORIA	PEDEIOS RIVER	1233	KATO DEFTERA	1400	1440	1551	1590	1622	1688
6	1	2	MESSAORIA	PEDEIOS RIVER	1000	NICOSIA W	0	0	0	0	0	0
6	1	2	MESSAORIA	PEDEIOS RIVER	1022	ANTHOUPOULIS	3531	3811	3849	4005	4147	4316
6	1	3	MESSAORIA	PEDEIOS RIVER	2110	FOTA	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	2111	KRINI	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	2113	KIOMORTSIU	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	2114	AGRTA	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	2100	PANO DIKOMIO	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	2101	KATO DIKOMIO	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	1251	KIONELI	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	1250	KANLI	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	1246	GEROLAKOS	0	0	0	0	0	0
6	1	3	MESSAORIA	PEDEIOS RIVER	1133	PALAIKYTHRO	0	0	0	0	0	0
6	1	4	MESSAORIA	PEDEIOS RIVER	2104	SICHARI	0	0	0	0	0	0
6	1	4	MESSAORIA	PEDEIOS RIVER	2103	VOUNO	0	0	0	0	0	0
6	1	4	MESSAORIA	PEDEIOS RIVER	2102	KOUTSOVENTIS	0	0	0	0	0	0
6	1	4	MESSAORIA	PEDEIOS RIVER	1132	MANDRES	0	0	0	0	0	0
6	1	4	MESSAORIA	PEDEIOS RIVER	1131	MIA MILIA	0	0	0	0	0	0
6	1	4	MESSAORIA	PEDEIOS RIVER	1013	AGLANGIA MUNICIPALITY	1794	19419	19613	20410	21135	22438
6	1	4	MESSAORIA	PEDEIOS RIVER	1137	TRACHONI	0	0	0	0	0	0
6	1	4	MESSAORIA	PEDEIOS RIVER	1000	LEFKOSIA	47036	52209	52731	54874	56822	60324

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Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
6	1	4	MESSAORIA	PEDIEOS RIVER	1000	LEFKOSIA e			0	0	0	0	0
6	1	5	MESSAORIA	PEDIEOS RIVER	1024	GERI	4982	5124	5530	5585	5612	6018	6390
6	1	5	MESSAORIA	PEDIEOS RIVER	1023	LATSIA	10015	10300	11116	11228	11684	12099	12844
6	1	5	MESSAORIA	PEDIEOS RIVER	1225	TSERI	4176	4295	4635	4682	4872	5045	5356
6	1	6	MESSAORIA	PEDIEOS RIVER	1130	MORA		0	0	0	0	0	0
6	1	6	MESSAORIA	PEDIEOS RIVER	3233	AGKASTINA		0	0	0	0	0	0
6	1	6	MESSAORIA	PEDIEOS RIVER	3211	PRASSTO		0	0	0	0	0	0
6	1	6	MESSAORIA	PEDIEOS RIVER	3212	PYRSA		0	0	0	0	0	0
6	1	6	MESSAORIA	PEDIEOS RIVER	3213	MOUSOULITA		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1134	EXO METSOHI		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1144	KOIROU MONASTIRI		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1142	PETRA TOU DIGENI		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1135	EPICHO		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1136	VONI		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1141	BEIKOI		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1138	NEO CHORIO KYTHREAS		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1139	KYTHREA		0	0	0	0	0	0
6	1	7	MESSAORIA	PEDIEOS RIVER	1143	KALYVAKIA		0	0	0	0	0	0
6	1	8	MESSAORIA	PEDIEOS RIVER	3234	MARATHOVOUNOS		0	0	0	0	0	0
6	1	8	MESSAORIA	PEDIEOS RIVER	3236	KIADOS (TJAOS)		0	0	0	0	0	0
6	1	8	MESSAORIA	PEDIEOS RIVER	3237	KORNOKIPOS		0	0	0	0	0	0
6	1	8	MESSAORIA	PEDIEOS RIVER	3238	AGIOS CHARITON		0	0	0	0	0	0
6	1	8	MESSAORIA	PEDIEOS RIVER	3239	TRYPMENI		0	0	0	0	0	0
6	1	8	MESSAORIA	PEDIEOS RIVER	3223	KNODARA		0	0	0	0	0	0
6	1	8	MESSAORIA	PEDIEOS RIVER	3235	VITSADA		0	0	0	0	0	0
6	2	1	MESSAORIA	LEFKONIKO AREA	1430	AGIOS NIKOLAOS		0	0	0	0	0	0
6	2	1	MESSAORIA	LEFKONIKO AREA	3234	GOUFES		0	0	0	0	0	0
6	2	1	MESSAORIA	LEFKONIKO AREA	3222	PSYLLATOS		0	0	0	0	0	0
6	2	2	MESSAORIA	LEFKONIKO AREA	3305	MELOUNTA		0	0	0	0	0	0
6	2	2	MESSAORIA	LEFKONIKO AREA	3300	ARTEMJI		0	0	0	0	0	0
6	2	2	MESSAORIA	LEFKONIKO AREA	3221	LEFKONIKO MUNICIPALITY		0	0	0	0	0	0
6	2	3	MESSAORIA	LEFKONIKO AREA	3303	PLATANI		0	0	0	0	0	0
6	2	3	MESSAORIA	LEFKONIKO AREA	3220	GYPSOU		0	0	0	0	0	0
6	2	4	MESSAORIA	LEFKONIKO AREA	3218	GENAGRA		0	0	0	0	0	0
6	2	4	MESSAORIA	LEFKONIKO AREA	3216	PERISTERONA		0	0	0	0	0	0
6	2	4	MESSAORIA	LEFKONIKO AREA	3217	PIGI		0	0	0	0	0	0
6	2	4	MESSAORIA	LEFKONIKO AREA	3219	MILIA		0	0	0	0	0	0
6	2	4	MESSAORIA	LEFKONIKO AREA	3215	MARATHA		0	0	0	0	0	0
6	2	4	MESSAORIA	LEFKONIKO AREA	3214	SANTALARIS		0	0	0	0	0	0
6	3	1	MESSAORIA	SYGKRASI AREA	3135	LAPATHOS		0	0	0	0	0	0
6	3	3	MESSAORIA	SYGKRASI AREA	3312	MANDRES		0	0	0	0	0	0
6	3	3	MESSAORIA	SYGKRASI AREA	3310	AGIOS IAKOVOS		0	0	0	0	0	0
6	4	2	MESSAORIA	LIMNIA AREA	3124	ALOFA		0	0	0	0	0	0
6	4	2	MESSAORIA	LIMNIA AREA	3131	ARNADI		0	0	0	0	0	0
6	4	3	MESSAORIA	LIMNIA AREA	3130	SPATHARIKO		0	0	0	0	0	0
6	4	3	MESSAORIA	LIMNIA AREA	3132	AGIOS GEORGIOS		0	0	0	0	0	0
6	4	3	MESSAORIA	LIMNIA AREA	3134	SYGKRASI		0	0	0	0	0	0
6	4	4	MESSAORIA	LIMNIA AREA	3122	SYLLOI		0	0	0	0	0	0
6	4	4	MESSAORIA	LIMNIA AREA	3120	EKROMI		0	0	0	0	0	0
6	4	4	MESSAORIA	LIMNIA AREA	3112	AGIOS SERGIOS		0	0	0	0	0	0
6	4	4	MESSAORIA	LIMNIA AREA	3123	LIMNIA		0	0	0	0	0	0
6	5	1	MESSAORIA	GIALIAS RIVER	1104	KOTSIANTIS	142	146	156	157	161	164	171
6	5	1	MESSAORIA	GIALIAS RIVER	1221	KATALYONTAS	0	0	0	0	0	0	0
6	5	1	MESSAORIA	GIALIAS RIVER	1220	KAPIDES	470	483	517	521	534	544	567
6	5	1	MESSAORIA	GIALIAS RIVER	1109	LYTHRODONTAS	2015	2072	2218	2232	2288	2334	2429
6	5	1	MESSAORIA	GIALIAS RIVER	1101	MATHIAS	496	510	546	549	563	575	598
6	5	2	MESSAORIA	GIALIAS RIVER	1224	MARKI	70	72	77	78	79	81	84
6	5	2	MESSAORIA	GIALIAS RIVER	1222	ANALYONTAS	262	269	288	290	297	303	316
6	5	3	MESSAORIA	GIALIAS RIVER	1121	AGIOS SOZOMENOS	0	0	0	0	0	0	0
6	5	3	MESSAORIA	GIALIAS RIVER	1105	NISSOU	1143	1176	1258	1266	1298	1324	1378
6	5	3	MESSAORIA	GIALIAS RIVER	1107	DALI MUNICIPALITY	4757	4893	5237	5268	5402	5510	5735
6	5	3	MESSAORIA	GIALIAS RIVER	1106	PERA CHORIO	1966	2022	2164	2177	2232	2277	2370
6	5	3	MESSAORIA	GIALIAS RIVER	1110	LOUROUKINA		0	0	0	0	0	0
6	5	3	MESSAORIA	GIALIAS RIVER	1120	POTAMIA	402	413	443	445	456	466	485



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Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
6	5	4	MESSAORIA	GIALIAS RIVER	1125	TYMVOU	0	0	0	0	0	0
6	5	5	MESSAORIA	GIALIAS RIVER	4201	PETROFANI	0	0	0	0	0	0
6	5	5	MESSAORIA	GIALIAS RIVER	4202	ATHENOU	3978	4236	4284	4392	4481	4663
6	5	5	MESSAORIA	GIALIAS RIVER	4204	TREMETSOUSIA	0	0	0	0	0	0
6	5	5	MESSAORIA	GIALIAS RIVER	4203	MELOUSEIA	0	0	0	0	0	0
6	5	5	MESSAORIA	GIALIAS RIVER	1124	AGIA	0	0	0	0	0	0
6	5	5	MESSAORIA	GIALIAS RIVER	3232	ASANTEIA	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3205	AKSOZ	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3231	ASKEIA	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3204	STROGYLOS	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3205	SINTA	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3203	VATILI	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3202	LYSI MUNICIPALITY	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3201	KONTEA	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3200	KOUKIA	0	0	0	0	0	0
6	5	6	MESSAORIA	GIALIAS RIVER	3205	SINTA	0	0	0	0	0	0
7	1	1	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3113	KALOPSIDA	0	0	0	0	0	0
7	1	1	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3112	MAKRASYKA	0	0	0	0	0	0
7	1	1	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3111	ACHNA	1813	1941	1953	2002	2042	2125
7	1	1	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	4108	PERGAMOS	0	0	0	0	0	0
7	1	3	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3110	AVGOROU	3687	3947	3970	4071	4153	4322
7	1	6	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3103	SOTIRA	3553	3912	3935	4034	4116	4283
7	1	6	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3105	FRENAROS	3211	3437	3458	3545	3616	3764
7	1	6	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3000	AMMOCHOSTOS(MUNICIPALITY)	0	0	0	0	0	0
7	1	6	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3000	AMMOCHOSTOS(MUNICIPALITY)	0	0	0	0	0	0
7	1	7	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3210	NEA SPARTI	0	0	0	0	0	0
7	1	7	SEMESSAORIA	ACHNA-AMMOCHOSTOS AREA	3114	ACHERITOU	1773	1922	1984	2013	2064	2137
7	2	1	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	4015	PYLA COSTAL ZONE	145	160	161	165	168	175
7	2	1	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	4104	PYLA	722	820	836	870	896	926
7	2	2	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	4106	ORMIDEIA	3682	4054	4078	4181	4268	4439
7	2	2	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	4105	XYLOTYMVOU	3138	3455	3475	3563	3635	3783
7	2	3	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	4107	XYLOTYMVOU	4511	4966	4996	5122	5225	5438
7	2	3	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	3104	LIOPETRI	3221	3656	3678	3771	3847	4004
7	2	5	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	3100	AGIA NAPA	1795	1988	2038	2079	2164	2316
7	2	6	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	3101	PARALIMNI	7941	8500	8551	8767	8944	9308
7	2	8	SEMESSAORIA	ORMIDEIA-PARALIMNI AREA	3102	DERYNEIA	4165	4585	4613	4729	4825	5021
8	1	1	LARNAKA	VOROKLINI AREA	3000	AMMOCHOSTOS(MUNICIPALITY)s	0	0	0	0	0	0
8	1	1	LARNAKA	VOROKLINI AREA	4103	AYDELLEFO	83	91	92	94	96	100
8	1	1	LARNAKA	VOROKLINI AREA	4101	TROULLO	888	978	983	1008	1029	1071
8	1	1	LARNAKA	VOROKLINI AREA	4102	VOROKLINI	1663	1710	1842	1888	1926	2005
8	1	2	LARNAKA	VOROKLINI AREA	4014	VOROKLINI COSTAL ZONE	294	324	326	334	341	354
8	1	2	LARNAKA	VOROKLINI AREA	4100	KELLIA	339	373	375	385	393	409
8	2	1	LARNAKA	ARADIPPOU RIVER	4217	KOCHIA	0	0	0	0	0	0
8	2	1	LARNAKA	ARADIPPOU RIVER	1108	LYMPIA	2030	2235	2248	2305	2352	2447
8	2	3	LARNAKA	ARADIPPOU RIVER	4010	ARADIPPOU	7223	8011	8091	8420	8719	9256
8	2	3	LARNAKA	ARADIPPOU RIVER	4011	LIVADIA	3936	4365	4409	4588	4751	5044
8	3	1	LARNAKA	LARNAKA SALT LAKE AREA	4210	KALON CHORIO	1358	1506	1521	1583	1639	1740
8	3	1	LARNAKA	LARNAKA SALT LAKE AREA	4000	LARNAKA e MUNICIPALITY	43586	48328	48325	50809	52613	55856
8	3	1	LARNAKA	LARNAKA SALT LAKE AREA	4000	LARNAKA e MUNICIPALITY	951	1065	1065	1109	1148	1219
8	3	2	LARNAKA	LARNAKA SALT LAKE AREA	4013	MENEOU	4422	4904	4953	5155	5338	5667
8	3	2	LARNAKA	LARNAKA SALT LAKE AREA	4012	DROMOLAXIA	2621	2907	2936	3055	3164	3359
8	3	2	LARNAKA	LARNAKA SALT LAKE AREA	4000	LARNAKA w	0	0	0	0	0	0
8	4	1	LARNAKA	TREMITHIOS RIVER	1102	ALAMBRA	994	1094	1101	1129	1151	1198
8	4	1	LARNAKA	TREMITHIOS RIVER	1103	AGIA VARVARA	1304	1436	1444	1481	1511	1572
8	4	1	LARNAKA	TREMITHIOS RIVER	1100	SIA	417	469	473	483	483	503
8	4	2	LARNAKA	TREMITHIOS RIVER	4215	KORINOS	1540	1684	1706	1749	1784	1857
8	4	2	LARNAKA	TREMITHIOS RIVER	4212	MOSEFLOTI	950	1062	1062	1079	1100	1145
8	4	3	LARNAKA	TREMITHIOS RIVER	4213	PSEVDAS	823	906	911	935	953	992
8	4	3	LARNAKA	TREMITHIOS RIVER	4214	AGIA ANNA	200	222	220	222	232	241
8	4	4	LARNAKA	TREMITHIOS RIVER	4214	PYRGA	382	421	423	434	443	461
8	4	5	LARNAKA	TREMITHIOS RIVER	4113	SOFTADES	0	0	0	0	0	0
8	4	5	LARNAKA	TREMITHIOS RIVER	4111	PERIVOLA	1507	1659	1669	1711	1746	1817
8	4	5	LARNAKA	TREMITHIOS RIVER	4112	TERSEFANO	739	814	818	839	856	891

ANNEX 6-3

Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
8	4	5	LARNAKA	TREMITHIOS RIVER	4126	KLAVDIA	552	591	595	610	622	647
8	5	1	LARNAKA	POUZI RIVER	4124	KIVISILI	213	234	236	242	247	257
8	5	1	LARNAKA	POUZI RIVER	4125	ALETHRIKO	618	660	684	702	716	745
8	5	2	LARNAKA	XEROPOTAMOS RIVER	4127	ANGLISIDES	901	927	1023	1044	1044	1086
8	6	1	LARNAKA	XEROPOTAMOS RIVER	4120	MAZOTOS	665	732	737	755	770	802
8	6	1	LARNAKA	XEROPOTAMOS RIVER	4122	ANAFOTIA	604	646	650	667	680	708
8	6	1	LARNAKA	XEROPOTAMOS RIVER	4123	ABLANTA	0	0	0	0	0	0
8	6	2	LARNAKA	XEROPOTAMOS RIVER	4128	MENOSIEA	74	81	82	84	86	89
8	6	3	LARNAKA	XEROPOTAMOS RIVER	4309	KOFINOI	1438	1593	1593	1633	1666	1734
8	6	3	LARNAKA	XEROPOTAMOS RIVER	4121	ALAMINOS	261	287	289	296	302	315
8	7	2	LARNAKA	PENDASKINOS RIVER	4310	KATO LEFKARA	146	161	162	166	169	176
8	7	2	LARNAKA	PENDASKINOS RIVER	4311	PANO LEFKARA	989	1069	1075	1103	1125	1171
8	7	3	LARNAKA	PENDASKINOS RIVER	4216	DELIKIPOS	10	11	11	11	12	11
8	7	4	LARNAKA	PENDASKINOS RIVER	4308	SKARINOI	187	206	207	212	217	225
8	7	6	LARNAKA	PENDASKINOS RIVER	4307	AGIOS THEODOROS	577	635	639	655	668	696
8	8	1	LARNAKA	MARONI RIVER	4319	VAVAT SINIA	91	100	101	103	105	110
8	8	2	LARNAKA	MARONI RIVER	4313	VAVLA	58	64	64	66	67	70
8	8	2	LARNAKA	MARONI RIVER	4312	KATO DRY'S	112	123	124	127	130	135
8	8	3	LARNAKA	MARONI RIVER	4304	CHOIROKOITIA	394	434	436	447	456	475
8	8	3	LARNAKA	MARONI RIVER	4306	MARONI RIVER	424	467	470	481	491	511
8	8	4	LARNAKA	MARONI RIVER	4305	PSEMATISMENOS	146	161	162	166	169	176
8	8	4	LARNAKA	MARONI RIVER	4303	TOCHNI	297	305	329	337	344	358
8	8	4	LARNAKA	MARONI RIVER	4300	ZYGI	435	447	482	494	524	524
8	9	1	LARNAKA	VASILIKOS RIVER	4316	MELINI	93	99	100	102	104	108
8	9	1	LARNAKA	VASILIKOS RIVER	4317	ODOU	141	155	156	160	163	170
8	9	1	LARNAKA	VASILIKOS RIVER	4318	AGIOI YVAT SINIAS	217	239	240	246	251	262
8	9	1	LARNAKA	VASILIKOS RIVER	4315	ORA	181	188	200	206	210	218
8	9	2	LARNAKA	VASILIKOS RIVER	5138	KELLAKI	217	223	240	246	251	262
8	9	2	LARNAKA	VASILIKOS RIVER	5136	EFTAGONIEA	302	324	326	334	341	354
8	9	3	LARNAKA	VASILIKOS RIVER	4314	LAGEIA	22	24	24	25	25	27
8	9	4	LARNAKA	VASILIKOS RIVER	5137	AKAPNOU	34	37	38	39	39	41
8	9	4	LARNAKA	VASILIKOS RIVER	5134	KIOWNARI	17	19	19	19	20	20
8	9	4	LARNAKA	VASILIKOS RIVER	5135	VIKLA	45	50	50	51	52	54
8	9	5	LARNAKA	VASILIKOS RIVER	5131	SANIDA	74	81	82	84	86	89
8	9	6	LARNAKA	VASILIKOS RIVER	4302	VASA (KELLAKIOU)	642	707	711	729	744	774
8	9	6	LARNAKA	VASILIKOS RIVER	5130	KALAVASOS	299	329	331	340	346	360
8	9	7	LARNAKA	VASILIKOS RIVER	4301	ASGATA	236	260	261	268	273	285
9	1	2	LIMASSOL	MONI RIVER	5128	MARI	272	299	301	309	315	328
9	1	2	LIMASSOL	MONI RIVER	5127	MONI	287	316	318	326	332	346
9	1	2	LIMASSOL	MONI RIVER	5126	MONAGROULLI	348	363	365	395	403	420
9	1	4	LIMASSOL	MONI RIVER	5125	PENTAKOMO	850	874	941	965	985	1025
9	1	5	LIMASSOL	MONI RIVER	5129	PAREKLISIA	901	992	998	1023	1044	1086
9	1	8	LIMASSOL	MONI RIVER	5124	PYRGOS	345	360	382	392	400	416
9	1	9	LIMASSOL	MONI RIVER	5010	AGIOS TYCHON	1077	1166	1183	1223	1248	1298
9	2	1	LIMASSOL	GERMASOGEIA RIVER	5145	LOUVARAS	349	384	387	396	404	421
9	2	1	LIMASSOL	GERMASOGEIA RIVER	5146	KALON CHORIO	431	474	477	489	499	520
9	2	1	LIMASSOL	GERMASOGEIA RIVER	5142	AGIOS PAVLOS	174	192	193	198	202	210
9	2	2	LIMASSOL	GERMASOGEIA RIVER	5143	AGIOS KONSTANTINOS	191	210	212	217	221	230
9	2	2	LIMASSOL	GERMASOGEIA RIVER	5144	SYKOPEITRA	80	88	89	91	93	96
9	2	3	LIMASSOL	GERMASOGEIA RIVER	5123	AKROUNTA	281	309	311	319	326	339
9	2	3	LIMASSOL	GERMASOGEIA RIVER	5122	FOINIKARIA	164	181	182	186	190	198
9	2	3	LIMASSOL	GERMASOGEIA RIVER	5121	ARMENOCHOIRI	141	155	156	160	170	181
9	2	3	LIMASSOL	GERMASOGEIA RIVER	5141	ARAKAPAS	327	360	362	371	379	384
9	2	3	LIMASSOL	GERMASOGEIA RIVER	5140	DIERONA	286	315	317	325	331	345
9	2	3	LIMASSOL	GERMASOGEIA RIVER	5133	PRASITIO (KELLAKIOU)	79	87	87	90	92	95
9	2	4	LIMASSOL	GERMASOGEIA RIVER	5106	APSIOU	185	204	205	210	214	223
9	2	5	LIMASSOL	GERMASOGEIA RIVER	5013	GERMASOGEIA MUNICIPALITY	5902	6555	6621	6890	7135	7574
9	2	5	LIMASSOL	GERMASOGEIA RIVER	5120	MOUTAGAKA	1447	1607	1623	1689	1749	1857
9	3	1	LIMASSOL	AGIOS ATHANASIOS AREA	5012	AGIOS ATHANASIOS MUNICIPALITY	6930	7697	7774	8090	8377	8894
9	3	2	LIMASSOL	AGIOS ATHANASIOS AREA	5011	MESA GEITONIA MUNICIPALITY	11533	12810	12938	13464	13941	14801
9	3	2	LIMASSOL	AGIOS ATHANASIOS AREA	5100	PALOEIA	312	347	350	364	364	0
9	3	2	LIMASSOL	AGIOS ATHANASIOS AREA	5103	FASOULA	327	360	362	371	379	384
9	3	2	LIMASSOL	AGIOS ATHANASIOS AREA	5000	LEIMESOS MUNICIPALITY	87136	96782	97749	101722	105333	111826

ANNEX 6-3

Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
9	4	1	LIMASSOL	GARYLLIS RIVER	5107	APASIA	280	288	308	310	318	324	338
9	4	1	LIMASSOL	GARYLLIS RIVER	5108	KORFI	159	164	175	176	181	184	192
9	4	1	LIMASSOL	GARYLLIS RIVER	5105	GERASA	100	103	110	111	114	116	121
9	4	3	LIMASSOL	GARYLLIS RIVER	5101	PARAMYTHA	239	246	263	265	271	277	288
9	4	3	LIMASSOL	GARYLLIS RIVER	5102	SPITALI	218	224	240	241	248	253	263
9	4	3	LIMASSOL	GARYLLIS RIVER	5104	MATHIKOLONI	65	67	72	74	74	75	78
9	4	4	LIMASSOL	GARYLLIS RIVER	5000	LEMESOS	0	0	0	0	0	0	0
9	4	4	LIMASSOL	GARYLLIS RIVER	5000	LEMESOS tw	0	0	0	0	0	0	0
9	5	1	LIMASSOL	AKROTIRI AREA	5211	ERINI	1120	1152	1233	1240	1272	1297	1330
9	5	1	LIMASSOL	AKROTIRI AREA	5020	YFSYNAS	4475	4603	4970	5020	5147	5300	5638
9	5	1	LIMASSOL	AKROTIRI AREA	5021	PANO POLEIMIDIA	3703	3809	4113	4154	4259	4410	4682
9	5	1	LIMASSOL	AKROTIRI AREA	5022	KATO POLEIMIDIA MUNICIPALITY	15985	16441	17754	17932	18385	19037	20211
9	5	1	LIMASSOL	AKROTIRI AREA	5000	LEMESOS w	0	0	0	0	0	0	0
9	5	2	LIMASSOL	AKROTIRI AREA	5210	KOLOSSI	2982	3067	3283	3303	3398	3454	3595
9	5	2	LIMASSOL	AKROTIRI AREA	5203	TRACHONI	3022	3108	3327	3347	3431	3501	3643
9	5	2	LIMASSOL	AKROTIRI AREA	5201	ASOMATOS	277	285	305	307	315	321	334
9	5	2	LIMASSOL	AKROTIRI AREA	5202	TSERKESOI	28	28	31	31	32	32	34
9	5	4	LIMASSOL	AKROTIRI AREA	5200	AKROTIRI	614	631	676	680	697	711	740
9	6	1	LIMASSOL	KOURIS RIVER	5331	KOILANI	337	347	371	373	383	390	406
9	6	1	LIMASSOL	KOURIS RIVER	5327	PERA PEDI	84	86	92	93	95	97	101
9	6	1	LIMASSOL	KOURIS RIVER	5351	PANO PLATRES	377	388	415	418	428	437	454
9	6	1	LIMASSOL	KOURIS RIVER	5318	MONIATIS	220	226	242	244	250	255	265
9	6	2	LIMASSOL	KOURIS RIVER	5306	AGIOS THERAPON	172	177	189	190	195	199	207
9	6	2	LIMASSOL	KOURIS RIVER	5326	VOLINI	189	194	208	209	215	219	228
9	6	2	LIMASSOL	KOURIS RIVER	5307	LOFOU	37	38	41	41	42	43	45
9	6	2	LIMASSOL	KOURIS RIVER	5303	KATO KVIDES	0	0	0	0	0	0	0
9	6	2	LIMASSOL	KOURIS RIVER	5304	PANO KVIDES	609	626	670	674	692	705	734
9	6	3	LIMASSOL	KOURIS RIVER	5353	PANO AMANTIOS	8	8	9	9	9	9	10
9	6	3	LIMASSOL	KOURIS RIVER	5394	KATO AMANTIOS	234	261	280	281	288	294	306
9	6	4	LIMASSOL	KOURIS RIVER	5317	KOURA	14	14	15	16	16	16	17
9	6	4	LIMASSOL	KOURIS RIVER	5313	SILIKOU	113	116	124	125	128	131	136
9	6	4	LIMASSOL	KOURIS RIVER	5310	AGIOS GEORGIOS	90	93	99	100	102	104	108
9	6	4	LIMASSOL	KOURIS RIVER	5314	MONAGRI	180	185	198	199	204	209	217
9	6	5	LIMASSOL	KOURIS RIVER	5363	POTAMITISSA	116	119	128	128	132	134	140
9	6	5	LIMASSOL	KOURIS RIVER	5364	DYMES	165	170	182	183	187	191	199
9	6	5	LIMASSOL	KOURIS RIVER	5367	AGRIDIA	158	163	174	175	179	183	190
9	6	5	LIMASSOL	KOURIS RIVER	5369	KYPEROUNTA	1455	1496	1602	1611	1652	1685	1754
9	6	5	LIMASSOL	KOURIS RIVER	5368	CHANDRIA	259	265	285	287	294	300	312
9	6	5	LIMASSOL	KOURIS RIVER	5365	PELENDRI	1377	1416	1516	1525	1564	1595	1660
9	6	5	LIMASSOL	KOURIS RIVER	5362	KATO MYLOS	65	67	72	72	74	75	78
9	6	5	LIMASSOL	KOURIS RIVER	5361	AGIOS IOANNIS	483	497	532	535	548	559	582
9	6	5	LIMASSOL	KOURIS RIVER	5360	AGIOS THEODOROS	138	142	152	153	157	160	166
9	6	5	LIMASSOL	KOURIS RIVER	5366	AGROS	764	786	841	846	868	885	921
9	6	6	LIMASSOL	KOURIS RIVER	5110	KAPLEIO	27	28	30	30	31	31	33
9	6	6	LIMASSOL	KOURIS RIVER	5316	AGIOS MAMAS	165	170	182	183	187	191	199
9	6	6	LIMASSOL	KOURIS RIVER	5315	TRIMIKLINI	254	261	280	281	288	294	306
9	6	6	LIMASSOL	KOURIS RIVER	5107	ZOPIGI	184	189	203	204	209	213	222
9	6	7	LIMASSOL	KOURIS RIVER	5311	DOROS	113	116	124	125	128	131	136
9	6	7	LIMASSOL	KOURIS RIVER	5312	LANEA	167	172	184	185	190	193	201
9	6	7	LIMASSOL	KOURIS RIVER	5109	MINIATIS	302	311	332	334	343	350	364
9	6	7	LIMASSOL	KOURIS RIVER	5302	ALASSA	182	187	201	202	207	211	220
9	6	8	LIMASSOL	KOURIS RIVER	5300	ZANAKTA	36	37	40	40	41	42	43
9	6	9	LIMASSOL	KOURIS RIVER	5301	SOUNI	229	236	254	254	261	266	277
9	6	9	LIMASSOL	KOURIS RIVER	5213	KANTOU	400	411	441	444	455	464	483
9	7	1	LIMASSOL	EPISKOPI AREA	5212	EPISKOPI	2783	2862	3071	3089	3167	3231	3362
9	7	2	LIMASSOL	EPISKOPI AREA	5214	SOTIRA	70	72	77	78	80	81	85
9	8	1	LIMASSOL	PARAMAL-AVDIMOU RIVER	5221	PARAMALI	144	144	159	160	164	167	174
9	8	2	LIMASSOL	PARAMAL-AVDIMOU RIVER	5308	PACHNA	1174	1207	1292	1300	1333	1360	1415
9	8	2	LIMASSOL	PARAMAL-AVDIMOU RIVER	5305	AGIOS AMVROSIOS	290	298	320	322	330	337	350
9	8	3	LIMASSOL	PARAMAL-AVDIMOU RIVER	5220	PRASTIO (AVDIMOU)	197	203	217	219	224	229	238
9	8	4	LIMASSOL	PARAMAL-AVDIMOU RIVER	5226	ANOGRVA	186	191	205	206	212	216	225
9	8	5	LIMASSOL	PARAMAL-AVDIMOU RIVER	5224	AGIOS THOMAS	47	48	52	52	53	55	57
9	8	6	LIMASSOL	PARAMAL-AVDIMOU RIVER	5222	AVDIMOU	637	655	703	707	725	740	770
9	9	2	LIMASSOL	PISSOURI AREA	5227	PISSOURI	879	904	970	976	1000	1020	1062

ANNEX 6-3

Hydrological Region	Watershed	Sub-Watershed	Hydrological Region Name	Watershed Name	Village Code	Village Name	Population 1992	Population 1992 (Demographic Report)	Population 1999	Population 2000	Population 2005	Population 2010	Population 2020
9	9	3	LIMASSOL	PISSOURI/AREA	5225	ALEKTORA	123	127	136	137	140	143	149
9	9	3	LIMASSOL	PISSOURI/AREA	5223	PLATANISKEIA	35	36	39	39	40	41	42
						TOTAL	602025	619183	666800	672647	696390	717484	757110

On the above are not included 88000 Turkish Cypriots and 115000 Turkish settlers

## ANNEX 6-4

### LEFKOSIA DOMESTIC WATER SUPPLY SCHEME

<b>LEFKOSIA WATER SUPPLY SCHEME</b>																																																				
<u>Year</u>	<u>Total Production-m3</u>	<u>Delivered to L.W.B* -m3</u>	<u>Delivered to Villages-m3</u>	<u>Losses -m3</u>																																																
<b>1990</b>	13178790	11843040	1487369																																																	
<b>1991</b>	9892130	8623680	1114476	153974																																																
<b>1992</b>	11400430	10229460	996332	174638																																																
<b>1993</b>	13034380	11491360	1265712	277308																																																
<b>1994</b>	13563230	11843100	1335188	384942																																																
<b>1995</b>	15000040	13025720	1596279	378041																																																
<b>1996</b>	15013520	12644850	2127138	241532																																																
<b>1997</b>	12997410	11162920	1747335	87155																																																
<b>1998</b>	12139320	10191410	1761875	186035																																																
<b>1999</b>	13888290	11248680	2246332	393278																																																
<b>2000</b>	14490470	11275410	2393688	821372																																																
<p>During the year 2000 the Lefkosia and suburbs used the following quantities:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">Lefkosia Municipality</td> <td style="width: 10%;">11.28 million m3</td> <td style="width: 40%;">from Government sources</td> <td style="width: 10%;"></td> </tr> <tr> <td>Laxia</td> <td>0.34</td> <td>" "</td> <td></td> </tr> <tr> <td>Lakatamia (0.77 million m3 already included in the 11.28 million m3)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Lakatamia</td> <td>0.22</td> <td>" from Gov. sources (on route)</td> <td></td> </tr> <tr> <td>Lakatamia</td> <td>0.45</td> <td>" from Community B/H</td> <td></td> </tr> <tr> <td>Yeri</td> <td>0.30</td> <td>" from Government sources</td> <td></td> </tr> <tr> <td>Deftera</td> <td>0.23</td> <td>" from Community B/H</td> <td></td> </tr> <tr> <td>Anthoupolis</td> <td>0.14</td> <td>" from Government sources</td> <td></td> </tr> <tr> <td>Tseri</td> <td>0.03</td> <td>" "</td> <td></td> </tr> <tr> <td>Tseri</td> <td>0.23</td> <td>" from Private &amp; Communal B/H</td> <td></td> </tr> <tr> <td>Others</td> <td>0.03</td> <td>" from Government sources</td> <td></td> </tr> <tr> <td><b>Total</b></td> <td><b>13.25</b></td> <td><b>million m3 from all sources</b></td> <td></td> </tr> </table>					Lefkosia Municipality	11.28 million m3	from Government sources		Laxia	0.34	" "		Lakatamia (0.77 million m3 already included in the 11.28 million m3)				Lakatamia	0.22	" from Gov. sources (on route)		Lakatamia	0.45	" from Community B/H		Yeri	0.30	" from Government sources		Deftera	0.23	" from Community B/H		Anthoupolis	0.14	" from Government sources		Tseri	0.03	" "		Tseri	0.23	" from Private & Communal B/H		Others	0.03	" from Government sources		<b>Total</b>	<b>13.25</b>	<b>million m3 from all sources</b>	
Lefkosia Municipality	11.28 million m3	from Government sources																																																		
Laxia	0.34	" "																																																		
Lakatamia (0.77 million m3 already included in the 11.28 million m3)																																																				
Lakatamia	0.22	" from Gov. sources (on route)																																																		
Lakatamia	0.45	" from Community B/H																																																		
Yeri	0.30	" from Government sources																																																		
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Anthoupolis	0.14	" from Government sources																																																		
Tseri	0.03	" "																																																		
Tseri	0.23	" from Private & Communal B/H																																																		
Others	0.03	" from Government sources																																																		
<b>Total</b>	<b>13.25</b>	<b>million m3 from all sources</b>																																																		

## ANNEX 6-5

### PER CAPITA WATER CONSUMPTION – LEMESOS AND SUBURBS

<b>PER CAPITA CONSUMPTION-LEMESOS AND SUBURBS 1999</b>					
<b>(Including all losses)</b>					
<b>Code</b>	<b>Area Name</b>	<b>Population Census 92</b>	<b>Population Demograph. 92</b>	<b>Population Demograph.99</b>	
5013	GERMASOGEIA MUNICIPALITY	5902	6070	6555	
5120	MOUTAGIAKA	1447	1488	1607	
5012	AGIOS ATHANASIOS MUNICIPALITY	6930	7128	7697	
5011	MESA GEITONIA MUNICIPALITY	11533	11862	12810	
5100	PALODEIA	312	321	347	
5103	FASOULA	327	336	360	
5000	LEMESOS MUNICIPALITYne	87136	89619	96782	
5211	ERIMI	1120	1152	1233	
5021	YPSONAS	4475	4603	4970	
5020	PANO POLEMIDIA	3703	3809	4113	
5022	KATO POLEMIDIA MUNICIPALITY	15985	16441	17754	
5210	KOLOSSI	2982	3067	3283	
5203	TRACHONI	3022	3108	3327	
5201	ASOMATOS	277	285	305	
<b>TOTAL POPULATION</b>		<b>145151</b>	<b>149288</b>	<b>161143</b>	
<b>TOTAL WATER CONSUMPTION (m3)</b>				<b>15698262</b>	
Water used in Industry				1500000	
Water used in Turism				1550000	
<b>Total Water Used in Industry /Tourism</b>				<b>3050000</b>	
<b>Water Used by Citizens</b>				<b>12648262</b>	
<b>PER CAPITA CONSUMPTION (including losse</b>		<b>215 litres/day</b>			
<b>Note : The Limassol Water Board gives the following <u>gross figures</u> per capita consumption:</b>					
<u>Year</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
<u>Litres/day</u>	194	195	190	162	147

**ANNEX 6-6****LEMESOS WATER BOARD – WATER CONSUMPTION**

<b>LEMESOS WATER BOARD - WATER CONSUMPTION</b>						
<b>(Including losses)</b>						
<b>Year</b>	<b>Akrotiri B/H</b>	<b>Garyllis B/H</b>	<b>Yermasoyia B/H</b>	<b>Springs</b>	<b>Treatment Plant</b>	<b>TOTAL</b>
1995	2897379	2185180	3295518	0	3341006	<b>11719083</b>
1996	2278312	689012	5274791	6165	3433729	<b>11682009</b>
1997	955184	0	3279723	18088	5740259	<b>9993254</b>
1998	1656683	429194	1112807	14459	5947803	<b>9160946</b>
1999	685420	1233318	707268	15598	7194761	<b>9836365</b>
2000	0	1767758	1005323	13033	6962219	<b>9748333</b>

**ANNEX 6-7**

**LEMESOS WATER SUPPLY FROM GOVERNMENT PROJECTS**

<b>LEMESOS DOMESTIC WATER SUPPLY FROM GOVERNMENT PROJECTS (Excluding boreholes)</b>						
	<b>Water Consumption -m3</b>					
	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Lemesos Water Board</b>	3341006	3433726	5740258	5947802	7194761	6962221
<b>Kato Polemidhia</b>	69457	1355	15436	115474	151371	180498
<b>Ypsonas</b>	2147	16557	8075	23265	14921	62128
<b>Kolossi-Erimi</b>	0	79387	251091	161751	152541	190015
<b>Kolossi</b>	0	6973	78927	49459	54023	77932
<b>W.S.S.B.A-Akrotiri</b>	0	0	96802	151541	243968	302227
<b>Pano Polemidhia</b>	0	0	0	0	0	17403
<b>TOTAL</b>	<b>3412610</b>	<b>3537998</b>	<b>6190589</b>	<b>6449292</b>	<b>7811585</b>	<b>7792424</b>



ANNEX 6-8

LEMESOS DOMESTIC WATER CONSUMPTION – SUPPLY FROM ALL SOURCES

LEMESOS DOMESTIC WATER CONSUMPTION - SUPPLY FROM ALL SOURCES (m3)						
	1995	1996	1997	1998	1999	2000
Water received from Treatment Plant						
Lemesos Water Board	3341006	3433726	5740258	5947802	7194761	6962219
Kato Polemidhia	69457	1355	15436	115474	151371	180498
Ypsonas	2147	16557	8075	23265	14921	62128
Kolossi-Erimi	0	79387	251091	161751	152541	190015
Kolossi	0	6973	78927	49459	54023	77932
W.S.S.B.A-Akrotiri	0	0	96802	151541	243968	302227
Pano Polemidhia	0	0	0	0	0	17403
<b>TOTAL From Treatment Plant</b>	<b>3412610</b>	<b>3537998</b>	<b>6190589</b>	<b>6449292</b>	<b>7811585</b>	<b>7792422</b>
Water received from Boreholes						
Akrotiri B/H for Lemesos W. Board	2897379	2278312	954584	1656683	685420	0
Akrotiri B/H for Villages-Suburbs	2358033	2354063	1748623	1716264	2046073	1971047
GaryllisB/H for Lemesos W. Board	2185180	689012	0	429194	1233318	1767758
Yermasoyia B/H for Lemesos W. Board	3295518	5274791	3279723	1112807	707268	1005323
Yermasoyia B/H for Yermasoyia&S.Urbs	3346000	3639000	3121000	2882000	3906375	3439000
<b>TOTAL From Boreholes</b>	<b>14082110</b>	<b>14235178</b>	<b>9103930</b>	<b>7796948</b>	<b>8578454</b>	<b>8183128</b>
Water from Springs for L. W. Board	0	6165	18088	14459	15598	13033
<b>GRAND TOTAL</b>	<b>17494720</b>	<b>17779341</b>	<b>15312607</b>	<b>14260699</b>	<b>16405637</b>	<b>15988583</b>

**ANNEX 6-9**

**LEMESOS WATER BOARD – GROUND WATER CONSUMPTION 1995-2000**

<b>LEMESOS WATER BOARD - GROUND WATER CONSUMPTION</b>						
<b>(Including losses)</b>						
<u>Year</u>	<u>Akrotiri B/H</u>	<u>Garyllis B/H</u>	<u>Yermasoyia B/H</u>	<u>Springs</u>	<u>Treatment Plant</u>	<u>TOTAL</u>
						<b>Total Groundwater</b>
1995	2897379	2185180	3295518	0	3341006	<b>11719083</b>
1996	2278312	689012	5274791	6165	3433729	<b>11682009</b>
1997	955184	0	3279723	18088	5740259	<b>9993254</b>
1998	1656683	429194	1112807	14459	5947803	<b>9160946</b>
1999	685420	1233318	707268	15598	7194761	<b>9836365</b>
2000	0	1767758	1005323	13033	6962219	<b>9748333</b>
						<b>%</b>
						8378077
						8242115
						4234907
						3198684
						2626006
						2773081
						71.5
						70.6
						42.4
						34.9
						26.7
						28.4

## ANNEX 6-10

### PER CAPITA WATER CONSUMPTION FOR LARNACA

DOMESTIC WATER CONSUMPTION IN LARNACA 1991 - 2000				
(Figures supplied by the Larnaca Water Board)				
Year	Quantity of Water m <sup>3</sup>	Population	Per Capita consumption l/day	Remarks
1991	2970086	53603	152	Restrictions
1992	3683533	55518	182	Restrictions
1993	4228092	56734	204	
1994	4202059	58325	197	
1995	4664860	59655	214	
1996	4378585	61134	196	
1997	3795140	62486	166	Restrictions
1998	3483774	62656	152	Restrictions
1999	3844917	63223	167	Restrictions
2000	3743990	63437	162	Restrictions

**ANNEX 6-11**

**DOMESTIC WATER SUPPLY FOR LARNACA**

<b>DOMESTIC WATER SUPPLY FOR LARNACA</b>			
	(Figures in m3)		
<b>Year</b>	<b>Water Supplied from Government Plants</b>	<b>Water Supplied from B/H</b>	<b>TOTAL</b>
<b>1990</b>	3288300		<b>3288300</b>
<b>1991</b>	2775700		<b>2775700</b>
<b>1992</b>	2113250		<b>2113250</b>
<b>1993</b>	2689140		<b>2689140</b>
<b>1994</b>	2769880		<b>2769880</b>
<b>1995</b>	2886030	1778760	<b>4664790</b>
<b>1996</b>	3116960	1260940	<b>4377900</b>
<b>1997</b>	3511990	279520	<b>3791510</b>
<b>1998</b>	3355520	129180	<b>3484700</b>
<b>1999</b>	3763836	77800	<b>3841636</b>
<b>2000</b>	3590691	58170	<b>3648861</b>
	In 1999 the following amount of water was used for industry, airport and hospital:		
	- Industrial zone	77290	
	- Free commercial zone	9670	
	- Airport	87500	
	- Hospital	30063	
	- Military camp (KEN)	4993	
	<b>TOTAL</b>	<b>209516 m3</b>	
	<b>During the years 1997 - 2000 there was shortage of water supply</b>		

## ANNEX 6-12

### PAFOS MUNICIPALITY DOMESTIC WATER SUPPLY AND CONSUMPTION

#### WATER SOURCES (Figures in m<sup>3</sup>)

Year	B/H 94/61	B/H 40/64	B/H 6	NATA P. Station	Pumping from Low Villages	Borehole of District Offic.	3 New B/H Started 1998	TOTAL
1991	228917	462157	310425	768170	0	0	0	1769669
1992	394400	407278	443116	997970	0	0	0	2242764
1993	408555	306355	391481	1095180	170066	0	0	2371637
1994	355185	410142	290991	760620	420623	0	0	2237561
1995	321810	510600	359130	762000	290999	83600	0	2328139
1996	304750	511610	367250	768600	385613	137000	0	2474823
1997	476957	509976	317725	773704	162483	200844	0	2441689
1998	503600	500122	239207	1291880	201280	291259	93878	3121226
1999	494553	408426	326043	1180842	644196	323790	253616	3631466
2000	387426	289274	423716	1145086	864911	387680	95792	3593885

#### WATER CONSUMPTION (Figures in m<sup>3</sup>)

1991	1507978
1992	1901904
1993	1992927
1994	2134540
1995	2249465
1996	2274035
1997	2141990
1998	2242514
1999	2351105
2000	2397369

Population in year 2000 : 20,000

**Tourism Consumption:** It is assumed that 50% of the tourists are staying within the Pafos Municipality hotels. Considering that Pafos gets 21.7% of the island's tourism for year 2000, the total tourists for Pafos are 582,680. Based on 11.3 staying days /tourism and on 400 lit/day Tourism Consumption is estimated to be : 1 316 856 m<sup>3</sup> ( 50% of 582680x11.3x400 lit/day)

On the above figure have to be added 658,083 m<sup>3</sup> as losses

Water consumed by local residence without losses (Net) :148 lit/day

Water consumed by local residents including losses : 222 lit/day (Losses : 538,432 m<sup>3</sup>/year)

Note. The losses have been proportionally distributed to tourism and local residents.

#### **Consumption by Local Population:**

**Per Capita Consumption of local population including losses : 222 litres/day**

Note: Due to the old pipe network within the Pafos city the losses are high (up to 35%)

## ANNEX 6-13

### WATER CONSUMPTION IN BRITISH BASES

<b>WATER CONSUMPTION IN BRITISH BASES (m<sup>3</sup>/Year)</b>											
<b>(Excluding losses - Figures supplied by the Base Officials)</b>											
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>WSBA</b>	1447871	981494	975075	1103618	1030428	1128245	1137658	738966	718500	699995	654502
<b>ESBA</b>	454252	434047	463043	522143	519750	493788	537729	408616	383493	412526	341933
<b>Sub-Total</b>	1902123	1415541	1438118	1625761	1550178	1622033	1675387	1147582	1101993	1112521	996435
<b>LEFKOSIA</b>	148542	125020	139891	118789	94956	85570	86075	84596	84634	71434	83615
<b>TROODOS</b>	42400	40129	44103	44689	43486	45897	43675	38927	29034	20661	16669
<b>TOTAL</b>	2093065	1580690	1622112	1789239	1688620	1753500	1805137	1271105	1215661	1204616	1096719
Note: - WSBA includes Akrotiri, Akrotiri Village and Episkopi - ESBA includes Dhekelia and Agios Nikolaos - In the consumption is not included water used for Landscape - A new desalination unit (Reverse Osmosis), will start operation at the end of April 2001, with production capacity of 660m <sup>3</sup> /day - It was said by the Base Officials that the daily water consumption is 200l/day in all bases ,except for Dhekelia which is 150l/day/capita											

**ANNEX 6-14**

**SOURCES OF DOMESTIC WATER SUPPLY IN BRITISH BASES (WSBA)**

<p align="center"><b>SOURCES OF DOMESTIC WATER SUPPLY FOR THE BRITISH BASES (WSBA)</b> (Episkopi, Akrotiri, Akrotiri Village) Figures supplied by the Base Officials</p>								
<p align="center"><b>Yearly Water Extraction (m3)</b></p>								
<b>Borehole No.</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Kourris No.2, (240/5)</b>	60830	37810	39467	50771	4279	0		0
<b>Kourris No.3, (100/56)</b>	38823	34496	44709	36953	233	2000	8916	0
<b>Kourris No.5, (220/52)</b>	26990	27056	6745	41800	2847	1200	8699	0
<b>Kolossi No. 1 (43/54)</b>	159310	178160	233210	208530	28640	16110	50	0
<b>Kolossi No. 2 (44/54)</b>	150	30360	49680	84636	40493	1980	12	0
<b>Kolossi No. 3 (80/54)</b>	222810	195330	225950	202290	226630	172504	138600	76620
<b>Paramali N0.1 (169/57)</b>	44208	94076	90790	51046	33790	116591	126761	114063
<b>Paramali N0.2 (175/57)</b>	46686	50154	122144	105709	37448	62480	108867	133798
<b>Kissousa Spring</b>	604336	563825	471559	391780	336408	299626	370756	378390
<b>TOTAL</b>	<b>1204143</b>	<b>1211267</b>	<b>1284254</b>	<b>1173515</b>	<b>710768</b>	<b>672491</b>	<b>762661</b>	<b>702871</b>

**ANNEX 6-15**

**SOURCES OF DOMESTIC WATER SUPPLY IN BRITISH BASES (ESBA)**

<p align="center"><b>SOURCES OF DOMESTIC WATER SUPPLY FOR THE BRITISH BASES (ESBA)</b> ( Dhekelia and Ayios Nikolaos) Figures supplied by the Base Officials</p>								
<p align="center">Yearly Water Extraction (m3)</p>								
<b>Borehole No.</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Dhekelia B/H 1</b>	80122	78030	80822	137759	91598	94494	109444	62731
<b>Dhekelia B/H 2</b>	43697	80512	75783	35154	27330	42551	59473	54398
<b>Dhekelia B/H 3</b>	51285	48311	40526	35659	14340	47388	23437	35179
<b>Dhekelia B/H 4</b>	188524	155930	116754	45420	29610	58880	46584	60247
<b>Dhekelia B/H 9</b>	18537	14750	15516	6338	635	1260	1812	535
<b>Dhekelia B/H 25</b>	6318	4406	5164	774	0	0	0	0
<b>Sub-Total (Boreholes)</b>	<b>388483</b>	<b>381939</b>	<b>334565</b>	<b>261104</b>	<b>163513</b>	<b>244573</b>	<b>240750</b>	<b>213090</b>
<b>Distillation</b>	<b>6856</b>	<b>17567</b>	<b>26716</b>	<b>62003</b>	<b>30193</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Famag. Main Supply Line</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>77115</b>	<b>35308</b>	<b>60414</b>	<b>38565</b>
<b>A. Nikolaos (6 Boreholes)</b>	<b>134553</b>	<b>135422</b>	<b>160221</b>	<b>168462</b>	<b>167862</b>	<b>98304</b>	<b>Not Avail</b>	<b>Not Avail</b>
<b>GRAND TOTAL</b>	<b>529892</b>	<b>534928</b>	<b>521502</b>	<b>491569</b>	<b>438683</b>	<b>378185</b>	<b>301164</b>	<b>251655</b>



## ANNEX 6-16

### VILLAGE DOMESTIC WATER CONSUMPTION SURVEY

Village Code	Village Name	Population 1992	Population 1999	Liters/Capita/Day	Weighted Village Cons. Factor	Weighted Average Liters/Capita/Day
5350	KATO PLATRES	133	220	319	0.003332	
5328	MANDRIA	107	120	411	0.002342	
5330	OMODOS	396	450	274	0.005854	
5329	POTAMIOU	50	75	400	0.001424	
5320	DORA	247	265	287	0.003611	
5322	ARSOS	315	320	190	0.002887	
6100	KOUKLIA	672	800	171	0.006495	
6113	NATA	238	262	197	0.002451	
6104	TIMI	840	1100	137	0.007155	
6107	ANARITA	327	420	200	0.003988	
6121	KOILI	277	400	83	0.001576	
6133	PEGEIA	1551	3500	235	0.039053	
6132	KATHIKAS	386	500	189	0.004487	▼
6353	DROUSEIA	386	400	277	0.005261	
6344	NEO CHORIO	285	351	178	0.002966	
6331	GILOU	724	750	105	0.003739	
6337	SKOULLI	102	87	26	0.000107	
6343	<b>POLIS MUNICIPALITY</b>	1252	2000	279	0.026494	
6363	ARGAKA	703	830	91	0.003586	
1301	ASKAS	238	3000	122	0.017378	
1300	PALAICHORI MORFOU	831	1200	123	0.007008	
1309	PLATANISTASA	201	250	129	0.001531	
1310	PALAICHORI ORINIS	446	550	125	0.003264	
1302	ALONA	189	240	123	0.001402	
1304	POLYSTYPOS	256	250	123	0.001460	
1307	LIVADIA	23	23	125	0.000137	
1308	ALITHINO	12	13	127	0.000078	
1207	KALON CHORION	514	650	110	0.003395	
1209	KLIROU	1455	2015	129	0.012342	
1208	MALOUNTA	319	650	205	0.006327	▼
1368	MENIKO	946	1000	160	0.007597	
1360	AKAKI	2372	3500	98	0.016286	
1241	PALAIOMETOCHO	3540	4100	86	0.016742	
1243	KOKKINOTRIMITHIA	2639	3200	103	0.015650	
1240	AGIOI TRIMITHIAS	1131	1250	160	0.009496	
1244	MAMMARI	1014	1200	140	0.007977	
1230	ERGATES	1418	1800	88	0.007521	
1233	KATO DEFTERA	1400	1600	133	0.010104	
1109	LYTHRODONTAS	2015	2700	102	0.013076	
1107	<b>DALI MUNICIPALITY</b>	4757	6300	207	0.061919	
1106	<b>PERA CHORIO (Included Nisou)</b>	1966	4000	116	0.022031	
4202	<b>ATHIENOU MUNICIPALITY</b>	3868	4500	128	0.027349	
3110	AVGOROU	3585	5000	90	0.021366	
3103	SOTIRA	3553	4300	84	0.017150	
3105	FRENAROS	3122	3600	104	0.017777	
4105	XYLOTYMVOU	3138	3700	103	0.018095	
4107	XYLOFAGOU	4511	5500	107	0.027942	
3104	LIOPETRI	3321	4000	93	0.017663	▼
3100	<b>AGIA NAPA MUNICIPALITY</b>	1795	2500	220	0.026114	
1108	LYMPIA	2030	2800	169	0.022468	
1102	ALAMBRA	994	1200	140	0.007977	

ANNEX 6-16

Village Code	Village Name	Population 1992	Population 1999	Liters/Capita/Day	Weighted Village Cons. Factor	Weighted Average Liters/Capita/Day
1103	AGIA VARVARA	1304	1600	109	0.008281	
4111	PERIVOLIA	1507	1700	95	0.007668	
4112	TERSEFANO	739	800	144	0.005470	
4127	ANGLISIDES	901	1100	130	0.006790	
4120	MAZOTOS	665	950	104	0.004691	
4122	ANAFOTIA	587	800	100	0.003798	
4310	KATO LEFKARA	146	120	88	0.000501	
4311	<b>PANO LEFKARA MUNICIPALITY</b>	971	1100	136	0.007103	
4319	VAVATSINIA	91	100	120	0.000570	
4313	VAVLA	58	50	90	0.000214	
4312	KATO DRY	112	80	95	0.000361	
4304	CHOIROKOITIA	394	600	91	0.002592	
4318	AGIOI VAVATSINI	217	200	110	0.001045	
4302	KALAVASOS	642	730	130	0.004506	
5125	PAREKLISIA	850	1300	197	0.012160	
5129	PYRGOS	901	2000	93	0.008831	
5124	AGIOS TYCHON	345	1500	145	0.010327	
5107	APAISIA	280	310	268	0.003945	
5021	YPSONAS	4475	6500	162	0.049997	
5020	PANO POLEMIDIA	3703	4113	150	0.029293	
5022	<b>KATO POLEMIDIA MUNICIPALITY</b>	15985	20000	155	0.147189	
5331	KOILANI	337	375	269	0.004790	
5327	PERA PEDI	84	350	172	0.002858	
5351	PANO PLATRES	377	222	633	0.006672	
5318	MONIATIS	220	240	233	0.002655	
5306	AGIOS THERAPON	172	190	259	0.002337	
5326	VOUNI	189	210	337	0.003360	
5307	LOFOU	37	143	393	0.002668	
5304	PANO KIVIDES	609	1000	171	0.008119	
5317	KOUKA	14	40	409	0.000777	
5313	SILIKOU	113	160	240	0.001823	
5310	AGIOS GEORGIOS	90	200	478	0.004539	
5314	MONAGRI	180	198	242	0.002275	
5367	AGRIDIA	158	165	130	0.001018	
5369	KYPEROUNTA	1455	2600	102	0.012592	
5368	CHANDRIA	259	278	135	0.001782	
5366	AGROS	764	800	139	0.005280	
5110	KAPILEIO	27	22	90	0.000094	
5316	AGIOS MAMAS	165	182	411	0.003552	
5315	TRIMIKLINI	254	650	402	0.012407	
5147	ZOPIGI	184	205	285	0.002774	
5311	DOROS	113	125	293	0.001739	
5312	LANEIA	167	190	486	0.004384	
5109	LIMNATIS	302	335	245	0.003897	
5301	SOUNI (Included Zanakia)	229	460	205	0.004477	
5308	PACHNA	1174	1500	146	0.010398	
5305	AGIOS AMVROSIOS	290	325	251	0.003873	
		<b>602025</b>	<b>146259</b>		<b>0.999902</b>	<b>144</b>
			<b>Population</b>			<b>Litres/Capita /Day</b>

Note: The survey on the village domestic water consumption was carried out by Mrs. Louiza Parouti, Technician to the Hydrology section of the WDD, Lefkosia.

**Ministry of Agriculture, Natural Resources and Environment  
of the Republic of Cyprus**

**Water Development Department**

**Food and Agriculture Organisation of the United Nations**

**Land and Water Development Division**

**TCP/CYP/8921**

**REASSESSMENT OF THE ISLAND'S WATER RESOURCES AND DEMAND**

**Objective 1 – Output 1.5.1**

**The Assessment of Water Demand of Cyprus**

## **ANNEXES 8-1 to 8-9**

**Details on Tourism Water Demand per Touristic Region**



## ANNEX 8-1

Region: Ammochostos - Paralimni

Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel

S/N	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC

Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel-Category

ANNUAL is a weighted average with CTO Tourist Distribution as weight

	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	ANNUAL
L/d	5*							
	4*							
	3*							
	H/A A							
	H/A B							

Percentage of Guestnights per Hotel-Category with respect to total Guestnights in the Region

Hotel Category	Overnight Stays
5*	6%
4*	19%
3*	26%
H/A A	28%
H/A B	21%

Note: 1\* and 2\* hotels are included in the 3\* category

Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
L/d						

Tourist Distribution for 2-month periods with respect to annual total # of tourists

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
CTO	3%	9%	24%	34%	26%	4%
FAO-Sample						

Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

CTO	L/d	
FAO-Sample	L/d	

## ANNEX 8-2

### Region: Ammochostos - Agia Napa Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel

S/N	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
7	5*	403	357	325	299	332	376
8	5*	372	278	235	286	244	201
9	5*	616	531	420	503	437	369
4	4*	350	275	229	221	284	270
5	4*	0	628	326	345	421	508
6	4*	440	513	334	324	313	301
1	3*	311	269	231	205	243	287
2	3*	208	246	236	202	219	237
3	3*	361	282	238	191	199	212
10	H/A A	499	276	182	232	200	174
11	H/A A	216	191	167	165	165	164
12	H/A A	222	202	186	179	197	214
13	H/A B	58	108	271	257	263	120
14	H/A B	99	118	136	230	165	102

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel-Category

ANNUAL is a weighted average with CTO Tourist Distribution as weight

	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	ANNUAL
L/d	5*	464	389	327	363	338	315	357
	4*	263	472	296	297	339	359	330
	3*	293	266	235	199	221	245	229
	H/A A	312	223	178	192	187	184	200
	H/A B	78	113	203	243	214	111	192

### Percentage of Guestnights per Hotel-Category with respect to total Guestnights in the Region

Hotel Category	Overnight Stays
5*	8%
4*	36%
3*	30%
H/A A	7%
H/A B	20%

Note: 1\* and 2\* hotels are included in the 3\* category

### Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
L/d	254	317	254	255	269	261

### Tourist Distribution for 2-month periods with respect to annual total # of tourists

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
CTO	7%	12%	18%	33%	22%	8%
FAO-Sample	7%	13%	21%	26%	22%	10%

### Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

CTO	L/d	266
FAO-Sample	L/d	267

## ANNEX 8-3

### Region: Hill Resorts

#### Per Capita Water Consumption (L/d) 1996-1998 Means per Hotel

S/N	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
17	4*	635	470	378	373	317	265
18	4*	327	327	202	202	1086	1086
15	3*	497	497	328	328	454	454
16	3*	202	268	325	315	332	356
65	3*	643	643	643	643	643	643

#### Per Capita Water Consumption (L/d) 1996-1998 Means per Hotel-Category ANNUAL is a weighted average with CTO Tourist Distribution as weight

	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	ANNUAL
L/d	5*							
	4*	481	398	290	287	702	675	418
	3*	448	470	432	429	477	485	449
	H/A A							
	H/A B							

#### Percentage of Guestnights per Hotel-Category with respect to total Guestnights in the Region

Hotel Category	Overnight Stays
5*	0%
4*	17%
3*	82%
H/A A	0%
H/A B	0%

Note: 1\* and 2\* hotels are included in the 3\* category

#### Per Capita Water Consumption (L/d) Mean of all hotel categories per period Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
L/d	452	455	406	403	514	516

#### Tourist Distribution for 2-month periods with respect to annual total # of tourists

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
CTO	7%	14%	15%	38%	16%	9%
FAO-Sample	9%	16%	17%	30%	18%	10%

#### Per Capita Water Consumption (L/d) Mean of all periods Determined as weighted average of the Mean of all hotel categories per period

CTO	L/d	442
FAO-Sample	L/d	447

## ANNEX 8-4

Region: Larnaca

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel

S/N	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
23	5*	756	773	338	308	342	332
20	4*	282	264	231	139	209	339
21	4*	618	452	345	175	315	421
22	4*	1057	806	258	129	228	301
19	3*	361	167	147	70	172	568
64	3*	448	250	295	178	235	260
57	3*	536	835	287	170	310	365
58	H/A A	200	164	207	142	139	184
59	H/A A	4228	835	228	142	235	1624
60	H/A A	1579	2507	374	80	130	1200
61	H/A B	985	831	207	249	631	2151
62	H/A B	778	1069	1141	232	190	81
63	H/A B	253	1524	287	161	395	1009

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel-Category

ANNUAL is a weighted average with CTO Tourist Distribution as weight

	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	ANNUAL
L/d	5*	756	773	338	308	342	332	409
	4*	652	507	278	147	251	354	288
	3*	448	417	243	139	239	398	256
	H/A A	2002	1169	270	121	168	1003	483
	H/A B	672	1141	545	214	405	1081	531

Percentage of Guestnights per Hotel-Category with respect to total Guestnights in the Region

Hotel Category	Overnight Stays
5*	8%
4*	36%
3*	30%
H/A A	7%
H/A B	20%

Note: 1\* and 2\* hotels are included in the 3\* category

### Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
L/d	696	671	324	169	279	552

Tourist Distribution for 2-month periods with respect to annual total # of tourists

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
CTO	7%	12%	18%	33%	22%	8%
FAO-Sample	7%	14%	20%	29%	22%	9%

### Per Capita Water Consumption (L/d)

Mean of all periods

Determined as weighted average of the Mean of all hotel categories per period with the Tourist Distribution for 2-month periods as weight

CTO	L/d	349
FAO-Sample	L/d	364



## ANNEX 8-5

Region: Limassol

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel

S/N	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
27	5*	258	258	258	258	258	258
28	5*	542	370	324	305	449	518
29	5*	1241	922	961	898	834	1012
25	4*	417	405	458	381	430	482
35	4*	534	323	301	367	320	326
26	4*	215	215	215	215	215	215
24	3*	339	307	332	357	321	283
36	3*	331	355	320	338	314	281
37	3*	371	332	336	284	298	589
34	H/A A	185	185	185	185	185	185
30	H/A A	222	222	222	222	222	222
31	H/A A	324	324	324	324	324	324
33	H/A B	386	386	386	386	386	386

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel-Category

ANNUAL is a weighted average with CTO Tourist Distribution as weight

	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	ANNUAL
L/d	5*	681	517	514	487	514	596	531
	4*	388	314	325	321	321	341	329
	3*	347	331	329	327	311	384	333
	H/A A	244	244	244	244	244	244	244
	H/A B	386	386	386	386	386	386	386

Percentage of Guestnights per Hotel-Category with respect to total Guestnights in the Region

Hotel Category	Overnight Stays
5*	24%
4*	22%
3*	36%
H/A A	8%
H/A B	9%

Note: 1\* and 2\* hotels are included in the 3\* category

### Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
L/d	433	370	372	363	364	415

Tourist Distribution for 2-month periods with respect to annual total # of tourists

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
CTO	9%	14%	18%	26%	21%	11%
FAO-Sample	9%	16%	19%	25%	20%	11%

### Per Capita Water Consumption (L/d)

Mean of all periods

Determined as weighted average of the Mean of all hotel categories per period

CTO	L/d	378
FAO-Sample	L/d	378

## ANNEX 8-6

Region: Lefkosia

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel

S/N	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
43	5*	649	638	1104	1148	830	749
41	4*	731	458	469	595	393	371
42	4*	389	283	351	497	344	463
40	3*						
38	3*	292	325	272	420	259	389
39	3*						
44	H/A B	831	427	577	890	547	623

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel-Category

ANNUAL is a weighted average with CTO Tourist Distribution as weight

	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	ANNUAL
L/d	5*	649	638	1104	1148	830	749	851
	4*	560	371	410	546	368	417	434
	3*	292	325	272	420	259	389	321
	H/A A							
	H/A B	831	427	577	890	547	623	627

Percentage of Guestnights per Hotel-Category with respect to total Guestnights in the Region

Hotel Category	Overnight Stays
5*	29%
4*	26%
3*	43%
H/A A	1%
H/A B	1%

Note: 1\* and 2\* hotels are included in the 3\* category

### Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
L/d	471	426	550	666	454	500

Tourist Distribution for 2-month periods with respect to annual total # of tourists

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
CTO	13%	19%	18%	14%	21%	15%
FAO-Sample	13%	19%	18%	14%	20%	15%

### Per Capita Water Consumption (L/d)

Mean of all 2-month periods

Determined as weighted average of the Mean of all hotel categories per period with the Tourist Distribution for 2-month periods as weight

CTO	L/d	505
FAO-Sample	L/d	505

## ANNEX 8-7

Region: Paphos

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel

S/N	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
52	5*	760	595	463	474	420	368
49	5*	1061	762	510	548	559	570
51	5*	601	406	471	416	397	344
46	4*	348	329	315	288	300	313
47	4*	405	378	346	351	371	397
48	4*	484	445	412	393	358	322
45	3*	195	208	217	259	218	166
50	H/A A	321	207	160	162	236	366
53	H/A A	435	344	295	212	195	177
54	H/A A	635	662	728	759	760	795
55	H/A B	732	396	274	273	267	300
56	H/A B	684	664	680	379	446	593

### Per Capita Water Consumption (L/d)

1996-1998 Means per Hotel-Category

ANNUAL is a weighted average with CTO Tourist Distribution as weight

	Cat.	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	ANNUAL
L/d	5*	807	588	481	479	459	427	512
	4*	412	384	357	344	343	344	358
	3*	195	208	217	259	218	166	219
	H/A A	463	404	394	378	397	446	404
	H/A B	708	530	477	326	357	447	436

Percentage of Guestnights per Hotel-Category with respect to total Guestnights in the Region

Hotel Category	Overnight Stays
5*	17%
4*	33%
3*	34%
H/A A	13%
H/A B	3%

Note: 1\* and 2\* hotels are included in the 3\* category

### Per Capita Water Consumption (L/d)

Mean of all hotel categories per period

Determined as weighted average of the 1996-1998 Means per Hotel-Category with the Percentage of Guestnights per Hotel-Category as weight

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
L/d	418	364	338	341	327	313

Tourist Distribution for 2-month periods with respect to annual total # of tourists

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
CTO	8%	14%	19%	26%	21%	12%
FAO-Sample	9%	17%	20%	27%	23%	13%

### Per Capita Water Consumption (L/d)

Mean of all periods

Determined as weighted average of the Mean of all hotel categories per period

CTO	L/d	344
FAO-Sample	L/d	376

## ANNEX 8-8

### Number of Tourist Establishments, Rooms and Beds per Village Boundary

Touristic Region	Village Code	Town/Village	No. of Establishments	No. of Rooms	No. of Beds
Ammochostos	3100	AGIA NAPA MUNICIPALITY	206	8093	19409
Ammochostos	3101	PARALIMNI MUNICIPALITY	118	7670	15969
Hill Resorts	5366	AGROS	2	173	332
Hill Resorts	1406	GALATA	1	29	55
Hill Resorts	1425	GERAKIES	1	20	38
Hill Resorts	1404	KAKOPETRIA	7	234	446
Hill Resorts	1424	KALOPANAGIOTIS	5	33	83
Hill Resorts	5350	KATO PLATRES	7	167	415
Hill Resorts	5369	KYPEROUNTA	1	9	25
Hill Resorts	5351	PANO PLATRES	4	232	459
Hill Resorts	1420	PEDOULAS	5	138	252
Hill Resorts	1400	SPLIA	1	6	12
Larnaka	4302	KALAVASOS	5	15	57
Larnaka	4310	KATO LEFKARA	2	29	55
Larnaka	4000	LARNAKA MUNICIPALITY	50	1339	3204
Larnaka	4111	PERIVOLIA	8	186	579
Larnaka	4104	PYLA	14	929	1945
Larnaka	4308	SKARINOU	2		26
Larnaka	4303	TOCHNI	10	41	110
Larnaka	4102	VOROGLINI	22	943	2023
Lefkosia	1013	AGLANGEIA MUNICIPALITY	1	27	51
Lefkosia	1301	ASKAS	1		8
Lefkosia	1011	EKGOMI	2	71	165
Lefkosia	1000	LEFKOSIA MUNICIPALITY	10	952	1862
Lefkosia	1109	LYTHRODONTAS	1	5	10
Lefkosia	1304	POLYSTYPOS	1		8
Lefkosia	1426	TSAKISTRA	1		4
Lemesos	5012	AGIOS ATHANASIOS MUNICIPALITY	1	144	288
Lemesos	5124	AGIOS TYCHON	22	1767	3696
Lemesos	5106	APSIOU	1	1	2
Lemesos	5322	ARSOS	2	5	12
Lemesos	5212	EPISKOPI	1	100	200
Lemesos	5211	ERIMI	2		42
Lemesos	5013	GERMASOGEIA MUNICIPALITY	62	2388	5890
Lemesos	5000	LEMESOS MUNICIPALITY	27	1420	2791
Lemesos	5307	LOFOU	1	1	2
Lemesos	5011	MESA GEITONIA MUNICIPALITY	1	176	352
Lemesos	5318	MONIATIS	1	11	22
Lemesos	5120	MOUTAGIAKA	1	33	63
Lemesos	5330	OMODOS	1	1	3
Lemesos	5125	PAREKLISIA	2	423	846
Lemesos	5227	PISSOURI	5	32	160
Lemesos	5129	PYRGOS	2	517	1052
Lemesos	5131	VASA (KELLAKIOU)	1		10
Pafos	6363	ARGAKA	1	9	26
Pafos	6020	CHLORAKAS	6	814	1630
Pafos	6129	CHOULOU	1	1	6
Pafos	6353	DROUSEIA	1	58	110
Pafos	6010	GEROSKIPOU MUNICIPALITY	8	1569	3065
Pafos	6345	GOUDI	2	3	20
Pafos	6124	KALLEPEIA	1	2	8
Pafos	6132	KATHIKAS	3	1	12
Pafos	6334	KATO AKOURDALEIA	2	7	19
Pafos	1457	KATO PYRGOS	3	149	284
Pafos	6027	KISSONERGA	4	559	1097
Pafos	6011	KONIA	1	85	162
Pafos	6336	KRITOU TERA	3	10	20
Pafos	6333	MILIOU	1	25	47
Pafos	6344	NEO CHORIO	10	365	738
Pafos	6102	NIKOKLEIA	1	8	16
Pafos	6000	PAFOS MUNICIPALITY	81	4346	11504
Pafos	6351	PANO ARODES	1	3	6
Pafos	6230	PANO PANAGIA	5	24	62
Pafos	6133	PEGEIA MUNICIPALITY	25	901	2241
Pafos	6343	POLIS CHRYSOCHOUS MUNICIPALITY	26	458	1199
Pafos	6367	POMOS	3	3	18
Pafos	6026	TALA	2	57	228

## ANNEX 8-9

### Tourist Water Demand 2000 per Village Boundary

Tourist Region	Village Code	Town/Village	Water Demand in m <sup>3</sup>
Ammochostos	3100	AGIA NAPA MUNICIPALITY	1,936,621
Ammochostos	3101	PARALIMNI MUNICIPALITY	1,593,379
Hill Resorts	5366	AGROS	122,904
Hill Resorts	1406	GALATA	20,361
Hill Resorts	1425	GERAKIES	14,067
Hill Resorts	1404	KAKOPETRIA	165,106
Hill Resorts	1424	KALOPANAGIOTIS	30,726
Hill Resorts	5350	KATO PLATRES	153,630
Hill Resorts	5351	PANO PLATRES	169,918
Hill Resorts	1420	PEDOULAS	93,288
Larnaka	4000	LARNAKA MUNICIPALITY	789,262
Larnaka	4311	PANO LEFKARA MUNICIPALITY	13,549
Larnaka	4111	PERIVOLIA	142,629
Larnaka	4104	PYLA	479,125
Larnaka	4303	TOCHNI	27,097
Larnaka	4102	VOROKLINI	498,339
Lefkosia	1013	AGLANGEIA MUNICIPALITY	17,425
Lefkosia	1011	EGKOMI	56,376
Lefkosia	1000	LEFKOSIA MUNICIPALITY	636,198
Lemesos	5012	AGIOS ATHANASIOS MUNICIPALITY	67,409
Lemesos	5124	AGIOS TYCHON	865,083
Lemesos	5212	EPISKOPI	46,812
Lemesos	5013	GERMASOGEIA MUNICIPALITY	1,378,609
Lemesos	5000	LEMESOS MUNICIPALITY	653,259
Lemesos	5011	MESA GEITONIA MUNICIPALITY	82,389
Lemesos	5120	MOUTAGIAKA	14,746
Lemesos	5125	PAREKLISIA	198,014
Lemesos	5227	PISSOURI	37,449
Lemesos	5129	PYRGOS	246,230
Pafos	6020	CHLORAKAS	260,706
Pafos	6353	DROUSEIA	17,594
Pafos	6010	GEROSKIPOU MUNICIPALITY	490,224
Pafos	1457	KATO PYRGOS	45,424
Pafos	6027	KISSONERGA	175,457
Pafos	6011	KONIA	25,911
Pafos	6344	NEO CHORIO	118,038
Pafos	6000	PAFOS MUNICIPALITY	1,839,978
Pafos	6133	PEGEIA MUNICIPALITY	358,431
Pafos	6343	POLIS CHRYSOCHOUS MUNICIPALITY	191,771
Pafos	6026	TALA	36,467
<b>TOTAL</b>			<b>14,110,000</b>

**Note:** Only main Tourist Towns/Villages were considered for Annex 8-9. For villages with very few guest beds their tourist water demand was considered to be included in the Domestic Water Demand.



**Ministry of Agriculture, Natural Resources and Environment  
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**TCP/CYP/8921**

**REASSESSMENT OF THE ISLAND'S WATER RESOURCES AND DEMAND**

**Objective 1 – Output 1.5.1**

**The Assessment of Water Demand of Cyprus**

# **ANNEX 10-1**

**Landscape Irrigation**





## ANNEX 10-1

### LANDSCAPE IRRIGATION

#### Lefkosia town

<b>Groundwater:</b>	
• Estimated 8000 boreholes in private houses with 1 m <sup>3</sup> /day for 250 days/year	2,000,000 m <sup>3</sup>
• Municipal areas and playgrounds	1,000,000 m <sup>3</sup>
<b>Total groundwater</b>	<b>3,000,000 m<sup>3</sup></b>
<b>Municipal domestic (already included in domestic use):</b>	<b>1,500,000 m<sup>3</sup></b>
<b>Treated sewage effluent:</b>	<b>Negligible</b>
<b>Total for Lefkosia</b>	<b>4,500,000 m<sup>3</sup></b>

#### Lemesos town

<b>Groundwater:</b>	
• Estimated 4000 boreholes in private houses with 1 m <sup>3</sup> /day for 250 days/year	1,000,000m <sup>3</sup>
• Municipal areas and playgrounds	1,000,000 m <sup>3</sup>
<b>Total groundwater</b>	<b>2,000,000 m<sup>3</sup></b>
<b>Municipal domestic (already included in domestic use):</b>	<b>1,500,000 m<sup>3</sup></b>
<b>Treated sewage effluent:</b>	<b>500,000 m<sup>3</sup></b>
<b>Total for Lemesos</b>	<b>4,000,000m<sup>3</sup></b>

#### Larnaka town

<b>Groundwater:</b>	
• Estimated 1000 boreholes in private houses with 1 m <sup>3</sup> /day for 250 days/year	250,000 m <sup>3</sup>
• Municipal areas and playgrounds	250,000 m <sup>3</sup>
<b>Total groundwater</b>	<b>500,000 m<sup>3</sup></b>
<b>Municipal domestic (already included in domestic use):</b>	<b>1,000,000 m<sup>3</sup></b>
<b>Treated sewage effluent:</b>	<b>500,000 m<sup>3</sup></b>
<b>Total for Larnaka</b>	<b>2,000,000m<sup>3</sup></b>

**Pafos town**

<b>Groundwater:</b>	
• Estimated 500 boreholes in private houses with 1 m <sup>3</sup> /day for 250 days/year	125,000m <sup>3</sup>
• Municipal areas and playgrounds	1,125,000 m <sup>3</sup>
<b>Total groundwater</b>	<b>1,250,000 m<sup>3</sup></b>
<b>Municipal domestic (already included in domestic use):</b>	<b>750,000 m<sup>3</sup></b>
<b>Treated sewage effluent:</b>	<b>Negligible</b>
<b>Total for Pafos</b>	<b>2,000,000m<sup>3</sup></b>

**Paralimni/Agia Napa**

<b>Groundwater:</b>	
• Estimated use in private houses	100,000m <sup>3</sup>
• Municipal areas and playgrounds	650,000 m <sup>3</sup>
<b>Total groundwater</b>	<b>750,000 m<sup>3</sup></b>
<b>Municipal domestic (already included in domestic use):</b>	<b>750,000 m<sup>3</sup></b>
<b>Treated sewage effluent:</b>	<b>Negligible</b>
<b>Total for Paralimni/Agia Napa</b>	<b>1,500,000m<sup>3</sup></b>

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**ANNEXES 11-1 to 11-3**

**Treated Sewage Effluent**



## ANNEX 11-1

### SEWAGE EFFLUENT TREATMENT PLANTS

<b>SEWAGE EFFLUENT TREATMENT PLANTS</b>			
<b>Name</b>	<b>W. Produced m3/Year</b>	<b>Treatment</b>	<b>Use</b>
Lefkosia Sewage Board	3650000	Secondary	Diverted to Pedicos River
Anthoupolis-Lefkosia	127750-max2.56 million	Secondary	Stored in open Reserv. for evaporation
Larnaca Sewage Board	912500 maximum	Tertiary	Landscape Irrigation
Agia Napa - Paralimni	2500000 maximum	Tertiary	Not operating - Landscape-Forest
Lemesos Sewage Board	3000000	Tertiary	Agriculture-Landscape of Hotels
Pafos Sewage Board	4895000	Tertiary	Not operating - Agriculture
Bathia Gonia	803000	Tertiary	Agriculture
Dhali- Nisou	182500	Tertiary	Agriculture
Platres	73000	Tertiary	Not operating-Agriculture
Carlsberg	146000	Tertiary	Agriculture
Lefkosia New Hospital	182500	Tertiary	Not operating - Landscape
Lemesos Hospital	47450	Tertiary	Landscape
Alassa (new site village)	18250	Tertiary	Agriculture
Palechori	73000	Tertiary	Diverted to the River
Apostolos Loucas	25550	Secondary	Used by The Agr. Res. Instit.
Kofinou	65700	Secondary	Agriculture
Zenon-Kamares II	109500	Secondary	Landscape irrigation
Agglisides	365000	Secondary	Agriculture
Kornos	25550	Tertiary	Landscape Irrigation
Stavrovouni	25550	Tertiary	Landscape Irrigation
Agios Ioannis	17900	Tertiary	Landscape Irrigation
Malounda	7300	Tertiary	Landscape Irrigation
Klirou	26300	Tertiary	Laandscape Irrigation
Kyperounda	109500	Tertiary	Agriculture
Troodos	8800		Landscape
<b>TOTAL Maximum</b>	<b>19829850</b>		

## ANNEX 11-2

### LEMSOS (MONI) SEWAGE TREATMENT PLANT – IRRIGATED CROPS 2000

Mari area	Crops	Area-Decars
	Citrus	33
	Olives	21
	Alfalfa	66
	Corn	53
	Sudax	26
	Potatoes	18
	Onions	5
	Turf (Vasilicos Cement)	10
		<b>232</b>
Ag. Georgios Alamanon		
	Citrus	0
	Olives, Figs, Other trees	135
	Alfalfa	417
	Corn	0
	Sorghum	0
	Potatoes	0
	Onions	0
	Aromatic Plants	20
		<b>572</b>
Parekklesia		
	Landscape	5
Pyrgos	Landscape	53
Lemessos Hotels	Landscape	502
Tychona Municipality	Landscape	300
Lemessos	Olives, Figs, Other trees	36
Yermasoyia Municipality	Landscape	6
		<b>902</b>
<b>GRAND TOTAL</b>		<b>1706</b>

## ANNEX 11-3

### LEMESOS SEWAGE TREATMENT PLANT – PRODUCTION AND USE

LEMESOS SEWAGE TREATMENT PLANT - PRODUCTION AND CONSUMPTION YEAR - 2000							
Month	Production m3	Reservoir name - m3		Consumption - m3			TOTAL
		Ag. Georgios*	Moni	Hotels	Polemidthia Dam	Ypsonas Res.	
Jan	226990	16229	210539	932	154063	55544	210539
Feb	219240	11681	205669	731	163797	41141	205669
Mar	254352	19322	236513	2544	117937	116032	236513
Apr	255528	54937	197153	4312	85383	107458	197153
May	277224	95790	124870	10200	8501	106169	124870
Jun	274440	115296	64745	11740	0	53995	65735
Jul	300144	110046	190808	13302	0	177506	190808
Aug	306356	106925	193888	7013	0	186875	193888
Sep	288456	109823	170842	7272	0	163570	170842
Oct	288024	90932	113389	6966	4234	102189	113389
Nov	272840	50610	202718	5237	27484	169997	202718
Dec	250780	32094	118501	3001	95835	19665	118501
<b>TOTAL</b>	<b>3214374</b>	<b>813685</b>	<b>2029635</b>	<b>73250</b>	<b>657234</b>	<b>1300141</b>	<b>2030625</b>
<p>Note: - * The total amount of <b>813685 m3</b> is partly used for irrigating foders, olives, deciduous and some vegetables in the Mari and Ayios Georgios area. However the biggest quantity is used for the Vasilikos cement factory.</p> <p style="padding-left: 20px;">- The amount of <b>2 million m3</b> diverted in the polemidhia dam and that stored in the Ypsonas reservoir, is used for irrigating table grapes and citrus in the Yermasoyia - Polemidhia Project.</p> <p style="padding-left: 20px;">- A <b>10% increase</b> of the treated sewage effluent is expected for the <b>year 2001</b>.</p>							