

## **ANNUAL REPORT OF THE FORESTRY DEPARTMENT FOR THE YEAR 2005**

### **GENERAL**

Progress in forestry development continued at a high rate during the year under review. All the targets set for the year, the main of which were the following, were achieved:

- Protection of the forests, especially against fires.
- Reforestation of burnt and other bare areas.
- Expansion of forests through reforestation of new areas brought under forestry especially in the lowlands.
- Conservation and protection of nature, especially in forest areas.
- Production of timber and other forest products, seeds and seedlings.
- Tending of forest stands.
- Rational management of the forests.
- Forest education.
- Forest research.
- Improved and more effective management and protection of the forests through the following engineering activities:
  - Maintenance, improvement and expansion of forest roads, telecommunications and buildings.
  - Purchase of new machinery and equipment and maintenance of the existing ones.
- Expansion of computerised methods in data recording and processing.
- Public recreation through the creation of National Forest Parks and the establishment, expansion and maintenance of picnic and camping sites.
- Establishment and maintenance of Nature Trails.
- Protection of flora and fauna.
- Conservation of Nature Monuments.
- Provision of employment to the inhabitants of forest villages.
- Harmonisation with Acquis Communautaire and implementation of various plans and projects which are cofinanced by European Union.

### **2. EXPENDITURE**

With a view to achieve the above targets £22.869.135 were approved in the Budget for the year 2005. The total amount spent out of the Budget was £17.801.292 (i.e. 77,84%). It is noted that the low percentage of the Budget execution, is due to the inclusion of an amount of £3.000.010 for the purchase of the two (2) helicopters which however, was not spent.

### **3. REVENUE**

The amount collected by the Department of Forests as revenue in 2005 was £ 1.965.027. The uncollected amount representing leases of forest land was £ 608.078. However, it should be noted that the value of indirect benefits by far exceeds the revenue value.

### **4. FOREST POLICY AND LAW**

The Technical Cooperation Project with FAO TCP/CY/2902 (A) concerning the amendment of Forest Law, initiated in 2004, was continued.

### **5. FOREST PROTECTION**

#### **I. Protection against fires**

The protection of existing forests against fires, especially during the prolonged dry and hot summers, is the principal concern of the Department of Forests. For the prevention and control of forest fires the following measures were taken:

- a) Recruitment of the Fire Fighting Task Force as well as the operation of the Fire Look – Out Stations / Observation Points. The 12-hour shift system introduced in 2004 was continued and the total number of labourers employed was 360.
- b) About 19,52 km of new forest roads were constructed, out of which 14,82 km are vehicle tracks and 4,70 km extraction roads. In addition 17,88 km existing forest roads were widened or improved.
- c) About 15 km of fire traces were constructed and 1 324 km were maintained.
- d) Two water tanks, one at Pafos Division and one at Nicosia Division were constructed. In addition a number of hydrants installed on pipes passing through the forest and on water tanks, which in the event of a fire supply water to the fire engines, were maintained.
- e) Mobile patrols in the forest, especially along the delimitation line, were carried out throughout the summer months, for prevention, detection and early intervention.
- f) The mechanization of the extinction of forest fires was continued successfully. At present, the Department has at its disposal 37 fire engines, 28 fire patrolling vehicles and 95 fire pumps of various types.
- g) The "Save our Forests Week" which was initiated in 1985 was celebrated again in May 2005. In addition a "Save the Forests Day" was celebrated in all schools of Cyprus, in co-operation with the Ministry of Education and Culture.

h) Lectures on the prevention and suppression of forest fires were given to the National Guard, the Police and the public. Also extensive publicity was made through the mass media.

i) In spite of the measures taken in 2005, 30 forest fires broke out in state forests and they burned an area of 43 ha. Most of the fires were put under control almost immediately after they broke out. The largest of them (started from the occupied areas) occurred at Aronas locality (Athalassa Forest) and burnt an area of 24 ha.

Also, the Department of Forests participated in the fighting of 120 fires occurred in private and government lands adjacent to state forests, which burned an area of about 855 hectares.

The causes of these fires, both forest fires and fires occurred in rural areas, were as follows:

- Agricultural operations (burning of stubble, weeds, etc.)	18%,
- Carelessness of campers / visitors / travelers	15%
- Illegal kindling of a fire from country houses	4%
- Refuse burning	8%
- Military operations	3%
- Hunting	2%
- Natural Causes (lightning)	2%
- Other causes (use of electric equipment, electricity line, throwing of unextinguished cigarette-ends and matches, children, etc.)	8%
- Malicious, and	24%
- Percentage of unknown causes	16%

## **II. Fire Protection Plan for Rural Areas**

The Department of Forests continued the implementation of the Fire Protection Plan for rural areas which started in 2001. During 2005, 2,30 km of vehicle tracks, 6,55 km of fire traces, and one water tank were constructed. In addition, 6,90 km of vehicle tracks and 11,95 km of fire traces were widened, improved or maintained.

The works in total carried out since the inception of the Plan were as follows : 69,97 km of new vehicle tracks, 444,99 km of fire traces, ten water tanks, three observation points, three helispots and installation of 44 hydrants.

## **III. Protection against insects**

Spraying from the air was continued during the year under review against the pine Processionary caterpillar, using *Bacillus thuringiensis* (Foray 48B), Tracer and Dimilin .

## **6. REFORESTATION**

An area of 203 ha was reforested during the year under review, out of which 52 ha concern haliland (state land) which will be declared as state forest. The new practice adopted in 2001, concerning the support of natural regeneration in burnt areas, was continued. With this practice, artificial reforestation using mechanical means, is not carried out before a time period of 5 to 7 years is elapsed.

Reforestation was carried out not only in Pafos, Troodos, Adelfoi, Limassol and Machairas forests but also in other bare areas such as Agia Napa, Sotira, Athalassa, Alona I and II, Pefkos and Pefkos I, II, III, Aspromoutti, Moutti tou Ziou, Agios Nikandros, Akapnou, Xylofagou, Ranti, and Skouriotissa Mine.

In addition the works concerning the reforestation/restoration of environment at Amiantos (Asbestos) Mine initiated in 1995 were continued. The hydroseeding method used in 2003 was continued with very good results.

Eight bulldozers were employed almost exclusively for ground preparation, as well as one Menzi-Muck suitable for climbing and working on steep slopes. Furthermore a large number of labourers was also employed for planting and sowing.

## **7. TIMBER PRODUCTION AND DISPOSAL**

During the year under review timber extraction and supply to local wood industries continued in a satisfactory way.

A volume of 5 465 m<sup>3</sup> R.O.B. of timber was extracted from the state forests and sold to private individuals, for the production of constructional timber, box-shooks, etc. It is worth mentioning that as from 2001, the Department of Forests stopped the sale of any timber to the Cyprus Forest Industries Co. Ltd., after a relevant decision of the Council of Ministers to close down the sawmilling and the particleboard manufacturing units.

In addition to the above, timber equivalent to 4 280 m<sup>3</sup> R.O.B. was extracted as firewood from the state forests.

During 2005, the Department of Forests issued 23 sawmill permits.

## **8. SILVICULTURE**

During the year under review, emphasis was given to the watering and other silvicultural treatments of young plantations, especially in the low lands. Silvicultural operations (thinning, cleanings, watering during the summer period, etc.) were carried out in an area of about 759 ha.

The seed collected during the year, together with the stock from last year, was adequate to cover both the Departmental needs and requests for export. A total quantity of about 2 530 kg of seed was collected. A small quantity of seed was exported. In addition for the reforestation/restoration of environment at Amiantos Mine a quantity of 750 kg of various seeds was collected and 200 kg of seed was imported.

The production of seedlings in the Departmental nurseries was adequate. A number of 288 330 seedlings were raised compared to 241 931 in 2004. The seedlings produced in 2005 plus the stock of 2004 amounted to 858 186. Out of the total quantity, 87 296 were used Departmentally, 163 501 were sold to the public or other Government Departments, and 58 235 were issued free of charge to schools, village authorities and other organizations and institutions for planting on public or communal lands. Also, 28 468 plants were issued free of charge to private individuals for the afforestation of privately owned land.

## **9. FOREST MANAGEMENT**

The main activities concerning forest management during 2005, were as follows :

a) The inventory of *Pinus brutia* in State unproductive forests to estimate growing stock, number of stems and increment started in 2004 was continued and by the end of 2005 the enumeration of permanent sample plots was completed.

The State unproductive forests covers an area of about 20 813 ha and a total number of 332 permanent sample plots were laid out.

The collected data have been analysed simultaneously with the field work. However, the conclusions will be drawn early next year.

b) The inventory / mapping of forest cover in areas outside the state forests, carried out during the period 1996-1999, includes both private land and state land (Halilands). The work for the separation of their area which started in 2004 was continued and is expected to be completed next year.

## **10. FOREST COMPUTERISATION**

Fifty computers were received while twenty-two computers of old model were withdrawn. At the end of the year the Department had at its disposal 131 computers as well as a sufficient number of programs used effectively in a different number of applications.

The Department of Forests created its own web-page and made it available for the public in July 2005.

## **11. FORESTRY EDUCATION**

The Cyprus Forestry College completed in 2005 its 54th Academic year. Five Cypriot and three foreign students, obtained their Diploma in Forestry. One six-month Post-Diploma course was also organised and one candidate from abroad obtained the "Higher Diploma in Forestry".

The 55th Academic year began on the 3rd of October, 2005 with a complement of 20 students out of whom 10 were Cypriots and 10 from other countries.

A number of officers of the Department participated in various international conferences, Seminars, etc. and another number of officers attended educational programmes both in Cyprus and abroad.

Also the Department organized at the Cyprus Forestry College Refresher Courses on various topics for the training of its staff and a large number of officers participated. Furthermore six Cypriot foresters participated in a two month study visit to U.K, under the European Union Programme "Leonardo da Vinci".

## **12. FORESTRY RESEARCH**

Forest Research and Publicity were continued on the same lines as in past years.

In summary, research dealt with the Monitoring of Forests and Environmental Interactions, the production of genetically improved seed of Brutia pine, the maintenance and improvement of the Arboretum and Tree Bank, the conservation of Forest Genetic Resources and with protection of forests against insects and diseases.

## **13. NATURE CONSERVATION**

The Department of Forests during 2005 contributed greatly towards the effort undertaken by the Ministry of Agriculture, Natural Resources and Environment for Nature Conservation, through various activities, of which the main ones were the following:

- a) The Department intensified its efforts through the organisation of lectures, voluntary work, ceremonies, and speeches through radio and T.V. for expansion of tree planting and protection of Nature.
- b) The Athalassa Environmental Information Center was inaugurated by H.E. the President of the Republic of Cyprus on 22 April, 2005. More than 9 500 visitors mainly from schools, organizations and associations visited the Center. In addition, the Troodos Environmental Information Center continued its operation successfully. During 2005, more than 18 000 visitors from Cyprus and abroad visited this Center.

c) The effort for the study, protection and systematic recording of the Cyprus indigenous and endemic plant species which was initiated in 1987 was continued. The collection of specimens for the completion of the Botanical Collection in the Department was also continued.

d) The Department of Forests participated actively in the Project started in 2002, aiming at publishing the “Red Book of Cyprus Flora”. The Publication of this Book is expected in 2006.

e) Also, the Department participated actively in the implementation of a project under the EU Programme “LIFE – NATURE”. The project started in November 2004 and it is expected to be completed in April 2008. The main purpose of the project is the preparation of Management Plans for four Areas of the European Network of Protected Areas “Nature 2000” as well as the application of Management Measures (Actions) aiming at the protection and monitoring of Habitats and Species of Community Interest.

f) The efforts to spot, protect and maintain Tree Monuments were continued.

g) During 2005, the effort for the systematic recording of the Cyprus indigenous and endemic mushrooms as well as the collection of specimens for the creation of a mushroom herbarium in the Department initiated in 1998 was continued.

h) During the year under review, the works for the establishment of the Troodos Arboretum at Amiantos area, initiated in 2003, were continued. The first four planting places were prepared and the first plants were planted. The Project is financed by the Anastasios G. Leventis Foundation.

In addition, the works for the establishment of an Arboretum at Akamas Forest were initiated.

i) The Council of Ministers declared the following two areas as National Forest Parks : an area of 4 523,6 ha of the Machairas and Lythrodontas Main State Forests, as “Machairas National Forest Park” and the “Vounia tou Anemou” State Forest of a total area of 112,6 ha as “Machairas I National Forest Park”.

j) The effective protection of the Cyprus moufflon (Ovis gmelini ophion) continued and the animal remains on the increase. In addition the Plan for the protection and reproduction of the Griffon Vulture (Gyps fulvus) was continued successfully.

#### **14. FOREST RECREATION**

During the year under review, the works for the development and maintenance of all National Forest Parks namely Athalassa, Paedagogical Academy, Troodos, Polemidia, Rizoelia, Kavo Gkreko and Petra tou Romiou were continued.

Also the works for the creation, improvement, extension, maintenance, and cleaning of picnic and camping places within the forests were continued. During the year under review, the works for the creation of a new picnic site at Petra tou Romiou National Forest Park were initiated and the works for the creation of a picnic site at Pykni (Pegia Forest) initiated in 2004 were continued.

Furthermore, the works for the construction, improvement and maintenance of Nature Trails and Paths in state forests as well as for the European Long Distance – Path No. 4, were continued.

They include:

- Construction of two Nature Trails, one at Pafos Forest (Xystarouda area) and one at Machairas Forest (Dio Mouttes area) of a length of 5,34 and 3,54 km respectively, and
- Construction of a path of a length of 7,12 km at Hapotami (Petra tou Romiou National Forest Park).

All the Nature Trails and paths constructed by the Department of Forests within and outside the State Forests attracted the interest of many walkers from Cyprus and overseas.

## **15. FOREST ENGINEERING**

### **a) Forest Roads**

The construction of new forest roads and the improvement of existing ones, constitutes an important aspect of the work of the Department, as roads serve on the one hand forest protection, tending and exploitation and on the other hand tourism and communication between forest villages.

During the year under review the following new roads and tracks were constructed:

- 14,82 km of vehicle tracks, and
- 4,70 km of extraction roads.

Furthermore, 17,88 km of roads were widened or improved and 12,00 km were asphalted at the road Dodeka Anemoi – Panagia.

In addition 1 433,49 km of main forest roads, 923,54 km of vehicle tracks and 1 194,99 km of extraction roads were maintained.

The total mileage of the forest road network by the end of 2005 was 1 433,49 km of main forest roads (including asphalted roads), 938,36 km of vehicle tracks and 1 199,69 km of extraction roads. The total length of the asphalted forest roads by the end of the year was 134,03 km.



## **b) Forest Telecommunications**

The Department of Forests maintains a well-organised telecommunication network for proper forest protection and management. This telecommunication system at the end of 2005 included the following:

- 364,51 km of telephone lines
- 368 telephone instruments
- 8 cellular telephones
- 2 telephone switch-boards
- 1 V.H.F. control station
- 411 mobile radiotelephones
- 520 portable radiotelephones
- 3 radiotelephone repeaters.

## **c) Forest Buildings**

During the year under review, the works for the erection of two Forest Stations, one at Droushia and one at Rizoelia as well as for the extension of the restaurant at Stavros tis Psokas Forest Station were continued and completed. Furthermore two stores at Stavros tis Psokas, one toilet at Pykni picnic place (Pegia Forest), one shed at Platania Forest Station and one garage at Forestry College were constructed. Also, major improvements were carried out at Asinou Forest Station and at the Forestry College.

In addition, usual repairs and maintenance were carried out to various forest buildings and the necessary equipment for various forest stations was purchased.

## **d) Machinery and Plant**

During 2005, the operation of the workshop at Athalassa for the maintenance of motor vehicles and machinery was continued.

The vehicles and machinery received during the year under review include : ten new vehicles, and six fire brigade lorries.

Also, various minor machinery, equipment, tools and instruments were purchased including one auto lawn mower, two mechanical air sprayers, twenty-eight power chainsaws and twenty grass mowers.

## **16. PROVISION OF EMPLOYMENT TO FOREST VILLAGES**

Under the socio-economic policy of the Government, which is implemented through the activities of the Department of Forests too, employment was provided to the inhabitants of forest villages. The total employment offered to both casual and regular employees was 136 240 work days.

Besides the labourers employed directly by the Department of Forests, an additional number of labourers were self-employed, through tenders or otherwise, for felling and transport of raw-material from the forests to various forest industries, at a total of about 1 949 work days.

Furthermore a large number of technicians and labourers were self-employed through the policy to contract the execution of various forest works such as, construction and maintenance of forest roads, maintenance of forest buildings, establishment and maintenance of roadside plantations, maintenance and cleaning of picnic and camping places, etc.

## **17. EUROPEAN UNION AFFAIRS**

During the year under review the following activities were carried out :

### **a) Matters Discussed at the EU Institutions**

- The proposal for a Regulation on support for Rural Development by the European Agricultural Fund for Rural Development, which was adopted on 20.9.2005.
- The proposal for a Regulation on the establishment of a FLEGT license scheme for imports of timber into the European Community, which was adopted on 20.12.2005.
- Proposal for a Regulation laying down detailed rules for the implementation of the Regulation on support for Rural Development by the European Agricultural Fund for Rural Development.
- Proposal for a Regulation of the European Parliament and of the Council concerning the Financial Instrument for the Environment (LIFE +).
- Negotiation of a successor Agreement to ITTA, 1994.
- Opening and completion of the discussion concerning the implementation of the Forest Strategy for the period 1998-2003.
- The preparation of the "European Union Forest Action Plan" which is expected to be completed in 2006.
- Discussion concerning the International Dialogue for the forests.

- Initiation of a discussion to abolish the Directive 68/89 concerning the Classification of the wood in the rough.

#### **b) Harmonisation with Acquis Communautaire**

- A draft bill to harmonize with the Regulation 2152/2003 on the monitoring of forests and environmental interactions in the Community (Forest Focus) was sent to the Office of the Attorney General for legal vetting. The bill, however, has not been proceeded further because the necessary provisions were included in the draft bill of the new Forest Law.
- The draft bill to accede the International Tropical Timber Agreement (ITTA 1994) was sent to the Office of the Attorney General for legal vetting. The bill, however, has not been proceeded further because the negotiations on the new International Agreement (ITTA) were expected to be concluded in January, 2006.

#### **c) Preaccession Assistance**

The implementation of the Project entitled "Management of the Akamas forest" included in the 2001 National Programme and cofinanced from Preaccession Assistance, was completed without success because the Automatic Fire Detection System installed at the Akamas Forest failed to satisfy the technical specifications.

#### **d) Implementation of Programmes Cofinanced by the European Union**

##### **• Rural Development Plan 2004-2006**

The implementation of the Rural Development Plan covering the time period 2004-2006, was continued. The Department of Forests is the competent authority of the following Measures:

2.4 Afforestation of agricultural land.

3.1 Protection of forests against fires and other natural disasters and reforestation of burnt areas.

3.2 Afforestation of non agricultural land and investments for the conservation and improvement of economic, ecological and social function of forests.

3.3 Investments to improve the harvesting, processing and marketing of forest products.

During 2005, there was one call for applications. The total number of applications approved, for all the Measures, was 245 and the public expenditure is estimated at £1.905.000.

- **National Programme for the Monitoring of Forests and Environmental Interactions in the Community (Regulation 2152/2003 – Forest Focus)**

The Programme covers activities concerning the monitoring of the impacts of atmospheric pollution and of forest fires on forests. The 2005-2006 Programme, was prepared and submitted to European Commission for approval in 2004, with a budget of £1.500.000. The Programme was approved during the year under review.

#### **e) Implementation of the Acquis Communautaire**

- **Implementation of the Directive 2000/29 concerning the Protective measures against the introduction into the Community of organisms harmful to plants or plants products and against their spread within the Community**

The absence of the harmful organisms Ips sexdentatus and Seiridium cardinale was again verified through systematic measurements carried out during the year in the twenty two plots established in 2001, for this purpose. In 2002, Cyprus was preliminarily considered as protected zone for these harmful organisms.

In addition, the checks carried out for the implementation of Decisions 2003/127/EC and 2004/426/EC verified the absence of Bursaphelenchus xylophilus and Phytophthora ramorum. The relevant report was forwarded to the European Commission in November 2005.

- **Implementation of the Directive 1999/105 concerning the Marketing of forest reproductive material**

The implementation of the 2003 Regulations transposing Directive 1999/105 on the marketing of forest reproductive material was continued. The checks in the nurseries listed in the National Register verified their compliance with these Regulations.

- **Implementation of the Directive 68/89 concerning the Classification of the wood in the rough**

Enforcement of the Law 48 (I) 2002 on the “Classification of the wood in the rough”, enacted on 1.11.2002, was continued.

## **18. COOPERATION WITH OTHER COUNTRIES BASED ON BILATERAL AGREEMENTS**

Under the Bilateral Agreement on Agricultural Sector between Cyprus and Greece the two Countries exchanged a number of visits on various forest matters.

## **19. ACKNOWLEDGEMENT**

Warm thanks are expressed to the Ministry of Agriculture, Natural Resources and Environment, to all Ministries and Government Departments for their close co-operation and to the Fire Service, the Police, the National Guard, the U.N. Force in Cyprus, the British Military Bases, the Cyprus Telecommunications Authority, the Boy-Scouts, the Girl Guides, the Cyprus Forestry Association and to all other Organisations and individuals for their kind assistance to the Department of Forests.

Also warm thanks are expressed to the Commonwealth Secretariat and the Anastasios G. Leventis Foundation for the scholarships awarded to overseas students to study at the Cyprus Forestry College. Last but not least, warm thanks are expressed to all the Forestry Staff, for their hard-work, zeal and devotion to duty and for their close co-operation, without which none of the targets and objectives of the Department could have been achieved.