

ANNUAL REPORT OF THE FORESTRY DEPARTMENT FOR THE YEAR 2004

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 £18.658.881 were approved in the Budget for the year 2004. The total amount spent out of the Budget was £16.030.974 (i.e. 85,92%).

3. REVENUE

The amount collected by the Department of Forests as revenue in 2004 was £ 1.637.650. The uncollected amount representing leases of forest land was £ 374.642. However, it should be noted that the value of indirect benefits by far exceeds the revenue value.

4. 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) During 2004, the Fire Fighting Task Force as well as the labour force of Fire Look-Out Stations / Observation Points, operated with new terms in conformity with the Law of 2002 on the organization of work time. The most important change was the introduction of the 12-hour shift system. The total number of labourers employed increased from 180 to 360.
- b) About 20,58 km of new forest roads were constructed, out of which 1,20 km are main forest roads, 7,98 km vehicle tracks and 11,40 km extraction roads. In addition 32,89 km existing forest roads were widened or improved.
- c) About 20 km of fire traces were constructed and 906 km were maintained.
- d) Two water tanks at Troodos Division were constructed and eleven new hydrants were installed on pipes passing through the forest and on water tanks, to supply water in the event of a fire, to the Departmental fire engines.
- 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 "Save our Forests Week" which was initiated in 1985 was celebrated again in May 2004. In addition a "Save the Forests Day" was celebrated in all schools of Cyprus, in co-operation with the Ministry of Education and Culture.
- g) 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 various mass media.
- h) The mechanization of the extinction of forest fires was continued successfully. At present, the Department has at its disposal 37 fire engines, 31 fire patrolling vehicles and 95 fire pumps of various types.

i) In spite of the measures taken in 2004, 15 forest fires broke out in state forests and they burned an area of 14 ha. It is worth mentioning that the year under review was the fifth best year with the smallest area burnt since records are kept, i.e. 1886. Most of the fires were put under control almost immediately after they broke out; the largest of them occurred at Pyrgos locality (Xylofagou Forest) and burnt an area of 10 ha.

The Department of Forests has also participated in the fighting of 164 fires occurred in private and government lands adjacent to state forests, which burned an area of about 960 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.)	28%,
- Carelessness of Campers / visitors / travelers	13%
- Illegal kindling of a fire from country houses	2%
- Refuse burning	7%
- Military operations	7%
- Hunting	2%
- Natural Causes (lightning)	4%
- Other causes (use of electric equipment, electricity line, throwing of unextinguished cigarette-ends and matches, children, etc.)	10%
- Malicious, and	11%
- 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 2004, 9,48 km of vehicle tracks, 71,40 km of fire traces, one water tank and one observation point were constructed and eight hydrants were installed. In addition, 111,70 km of vehicle tracks and 113,60 km of fire traces were widened, improved or maintained.

The works in total carried out since the inception of the Plan were as follows : 67,67 km of new vehicle tracks, 438,44 km of fire traces, nine 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 .

5. REFORESTATION

An area of 264 ha was reforested during the year under review, out of which 50 ha concern haliland (state land) which will be declared as state forest. From the total reforested area (264 ha), an area of 20 ha was reforested just by sowing and without any ground preparation. 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, Kamilostrata, Kremmos tou Afti, Pallourokampos, Kannourovrysi, Rizoelia, Malos, Profali 2, Akapnou, Kato Moni, Xylofagou, Madari, Mavralides, 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.

6. 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 6 234 m³ 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 3 525 m³ R.O.B. was extracted as firewood from the state forests.

During 2004, the Department of Forests issued 24 sawmill permits.

7. 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 810 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 1 154 kg of seed was collected. A small quantity of seed was exported.

The production of seedlings in the Departmental nurseries was adequate. A number of 241 931 seedlings were raised compared to 368 815 in 2003. The seedlings produced in 2004 plus the stock of 2003 amounted to 873 479. Out of the total quantity, 91 125 were used Departmentally, 127 646 were sold to the public or other Government Departments, and 61 794 were issued free of charge to schools, village authorities and other organizations and institutions for planting on public or communal lands. Also, 24 852 plants were issued free of charge to private individuals for the afforestation of privately owned land.

8. FOREST MANAGEMENT

The main activities concerning forest management during 2004, were as follows :

a) The stratification of State Forests initiated in 2003, was continued and completed. Maps for each forest with the various classes (productive forest, unproductive forest, other forest land, reforestations, bare areas and other uses) were prepared and their area was estimated.

b) During the year under review, the Department of Forests started the works for the inventory of *Pinus brutia* in State unproductive forests to estimate growing stock and increment. It will cover an area of about 20 813 ha.

A total number of 50 permanent sample plots were laid and the preliminary work was completed. The enumeration of the permanent sample plots will start in 2005.

c) 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 started in 2004 and is expected to be completed next year.

d) During 2004, a total number of 30 permanent sample plots in young plantations of *Pinus brutia* found in Pafos Forest were re-measured for growth studies. Estimates for the various parameters such as volume, mean diameter, mean height, mean height of usable timber, etc. will be calculated in 2005.

9. FOREST COMPUTERISATION

Seventeen computers were received while two computers of old model were withdrawn. At the end of the year the Department had at its disposal 103 computers as well as a sufficient number of programs used effectively in a different number of applications.

10. LEASE OF FOREST LAND

During the year under review, 1 222 ha of forest land was leased for Agricultural and Animal husbandry purposes.

By the end of the year twenty-four quarry licenses were in force in state forests.

11. FORESTRY EDUCATION

The Cyprus Forestry College completed in 2004 its 53rd Academic year. Four Cypriot and five foreign students, obtained their Diploma in Forestry. The six-month Post-Diploma course was not organised because there were no candidates from abroad.

The 54th Academic year began on the 1st of October, 2004 with a complement of 15 students out of whom 10 were Cypriots and 5 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 seven Cypriot foresters under the European Union Programme "Leonardo da Vinci" participated in a two month study visit, five to U.K. and two to Finland.

12. FORESTRY RESEARCH

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

In summary, research dealt with 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 2004 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) During the year under review, both the construction works as well as the work concerning the preparation of exhibits for the Athalassa Environmental Information Center were continued and completed. This Center started functioning in May 2004. The Troodos Environmental Information Center continued its operation successfully. During 2004, more than 21 000 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".
- e) The efforts to spot, protect and maintain Tree Monuments were continued.
- f) During 2004, 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.
- g) During the year under review, the works for the establishment of the Troodos Arboretum at Amiantos area, initiated in 2003, were continued. The Project is financed by the Anastasios G. Leventis Foundation.
- h) 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 and Kavo Gkreko were continued.

Furthermore during 2004, the work for the execution of the Development Plan for the Petra tou Romiou National Forest Park was started. The Plan was finalized through consultations with other interested Government Departments and Services, Local Authorities and non Governmental Organizations.

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 place at Pykni (Pegia Forest) were initiated.

The works related to Nature Trails and Paths include:

a) Works financed from Departmental funds

- Construction of a path of a length of 1,50 km at Machairas Forest, locality Throumpiaris, one at Prodromos of a length of 2,00 km and another one at Pinewood Valley of a length of 1,00 km.
- Completion of the Nature Trail at Loumata ton Aeton (Troodos forest) with the construction of another 2,00 km.
- Extension of the Nature Trail at Xyliatos Dam (Adelphoi forest) with the construction of 0,60 km.

b) Works financed by the Cyprus Tourism Organisation

- Construction of a new Nature Trail of a length of 10,10 km at Selladi tou Petrou (Pafos forest).
- Completion of the Nature Trail at Fylagra (Troodos Forest) with the construction of another 3,00 km.
- Maintenance of various sections of the European Long Distance – Path No. 4.

Furthermore, the works for the maintenance and improvement of Nature Trails and Paths constructed in state forests were continued.

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:

- 1,20 km of main forest roads,
- 7,98 km of vehicle tracks, and
- 11,40 km of extraction roads.

Furthermore 32,89 km of road widening or improvement was carried out and 15,00 km were asphalted at the road Orkontas – Kampos – Pyrgos which was completed.

In addition 1 432,29 km of main forest roads, 915,56 km of vehicle tracks and 1 183,59 km of extraction roads were maintained.

The total mileage of the forest road network by the end of 2004 was 1 433,49 km of main forest roads (including asphalted roads), 923,54 km of vehicle tracks and 1 194,99 km of extraction roads. The total length of the asphalted forest roads by the end of the year was 122,03 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 2004 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
- 384 mobile radiotelephones
- 487 portable radiotelephones
- 3 radiotelephone repeaters.

c) Forest Buildings

During the year under review, a new shed at Platania Forest Station was constructed, the extension of the restaurant at Stavros tis Psokas Forest Station started in 2002, was continued and the works for the erection of two Forest Stations, one at Droushia and one at Rizoelia were initiated. Also, major improvements were carried out at one house and one store at Platania Forest Station.

Furthermore, the work for the improvement of a house of remarkable architectural character, found at Stavros tis Psokas, was continued and completed.

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 2004, 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, one loader and one agricultural tractor.

Also, various minor machinery, equipment, tools and instruments were purchased including one branch chipping machine, one mechanical air sprayer, forty one power chainsaws and twenty five grass mowers.

16. PROVISION OF EMPLOYMENT TO FOREST VILLAGES

Under the socio-economic policy of the Government, which is implemented also through the activities of the Department of Forests, employment was provided to the inhabitants of forest villages. The total employment offered to both casual and regular employees was 127 660 work days.

Besides the labourers employed directly by the Department of Forests, an additional number of labourers were self-employed through tenders or otherwise, in felling and transport of raw-material from the forests to various forest industries, at a total of about 1 952 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 MATTERS

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

a) Harmonisation with Acquis Communautaire

- A draft bill to transpose the Regulation 2152/2003 on the monitoring of forests and environmental interactions in the Community (Forest Focus) has been drafted and sent to the Office of the Attorney General for legal vetting.
- A draft bill to accede the International Tropical Timber Agreement (ITTA 1994) has been drafted and sent to the Office of the Attorney General for legal vetting.

b) Current Matters under Discussion

- Proposal for a Council Regulation on support for Rural Development by the European Agricultural Fund for Rural Development.
- Proposal for a Council Regulation concerning the establishment of a FLEGT license scheme for imports of timber into the European Community.
- 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.

c) Preaccession Assistance

The implementation of the Project entitled "Management of the Akamas forest" which is included in the 2001 National Programme and cofinanced by the European Union was continued. The objective of the Project is the installation of an Automatic Fire Detection System at the Akamas Forest.

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, after the completion of the process for approval by the European Commission, was initiated. 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 2004, there was one call for applications. The interest, except for the Measure 2.4, was very satisfactory. The total number of applications approved, for all the Measures, was 140 and the public expenditure is estimated to run into £1.400.000.

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

The Programme for the year 2004 was prepared and approved by the European Commission with a budget of £129.000. It covers activities concerning the monitoring of the impacts of atmospheric pollution on forests and of the protection of forests against fires.

In addition, during 2004 a new Programme was prepared and submitted for approval by the European Commission, which covers the period 2005 – 2006.

e) Other Matters

- **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.

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

The implementation of the Regulation transposing Directive 1999/105 on the marketing of forest reproductive material was initiated.

- **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. FOREIGN AID

During the year under review, a new project entitled "Maintenance of the landscaping area at Hala Sultan Tekke (2004)" financed by the United Nations Office for Project Services (UNOPS), was initiated and completed. The total amount of assistance was £ 11.550 and its implementation was scheduled between 10.1.2004 to 31.12.2004. The executed works have been included in the relevant chapters.

20. ACKNOWLEDGEMENT

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Also warm thanks are extended to the Government of the Federal Republic of Germany and the Commonwealth Secretariat 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.