

REPUBLIC OF CYPRUS



**MINISTRY OF AGRICULTURE,
NATURAL RESOURCES AND ENVIRONMENT
DEPARTMENT OF FORESTS**



**2008 ANNUAL REPORT
OF THE DEPARTMENT OF FORESTS**

**BY: A. P. IOANNOU
DIRECTOR DEPARTMENT OF FORESTS**

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1. TARGETS AND OBJECTIVES

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

- Protection of the forests, especially against fires
- Expansion of forests through afforestation of new areas, especially in the lowlands
- Establishment and tending of forest stands
- Conservation and protection of nature
- 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
- Production of timber, other forest products and forest reproductive material
- Rational management of the forests
- Expansion of computerised methods of data recording and processing
- Expansion, improvement and maintenance of forest roads
- Expansion, improvement and maintenance of forest telecommunications
- Establishment and maintenance of forest buildings
- Purchase of new machinery and maintenance of the existing ones
- Forest education
- Forest research
- Provision of employment to the inhabitants of forest villages
- Harmonisation with Acquis Communautaire and implementation of various plans and projects, which are co-financed by the European Union

2. EXPENDITURE

With a view to achieving the above targets, €40.609.671 was approved as the Budget for the year 2008. The total amount of the Budget utilised was €37.119.692 (i.e. 91,41%).

3. REVENUE

The amount collected by the Department as revenue in 2008 was €8.800.002. The uncollected amount, representing leases of forest land, was €1.708.964. However, it should be noted that the value of indirect benefits by far exceeds the revenue value.

4. FOREST POLICY AND LAW

In 2008, the Technical Cooperation Programme with the Food & Agriculture Organisation (TCP/CY/2902(A)), concerning the amendment of Forest Law, initiated in 2004, continued. The draft of the new Forest Legislation and Regulations has been sent for comments to different Government Departments, Services and other stakeholders.

5. FOREST PROTECTION

(a) 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. For prevention, the following measures were taken:

- Recruitment of a Fire Fighting Task Force as well as the operation of fire lookout stations / observation points. Particular reference should be made to the development of 3 Rapid Intervention Fire Fighting Units, one in each Forest District, which were staffed with 56 fire fighters. The 12-hour shift system continued successfully in all forest stations and lookout stations. The total number of staff was 440.
- About 11,03 km of new forest roads were constructed out of which 7,87 km were vehicle tracks and 3,16 km extraction roads. In addition, existing forest roads were improved.
- About 0,50 km of fire breaks were built and 801 km were maintained.
- Three new hydrants were installed at Pafos Division.

- Four new water tanks were constructed; two at Pafos Division and two at Troodos Division.
- Mobile patrols in the forest, especially along the delimitation line, were carried out throughout the summer months for prevention, detection and early intervention.
- The mechanisation of the extinguishing of fires continued successfully. At present, the Department has at its disposal 40 fire engines, 37 fire-patrol vehicles and 81 water pumps. In addition, the Department purchased other secondary firefighting equipment such as water tanks, portable water pumps, fire hoses, nozzles, appliances for foam preparation, water launcher systems, etc.
- The installation of a network of automatic meteorological stations which began in 2007 was completed and it was placed in complete operation during 2008. Furthermore with the assistance of a Canadian expert, a special software was installed, which analyzes the meteorological data for the entire Cyprus and estimates the fire weather index. The software has also ability to assimilate the forest fire propagation helping in the management of fire fighting.
- The purchase of a new fire fighting and air spraying aircraft was initiated. A tender was awarded during 2008 and the contracts will be signed in early 2009. This aircraft along with the one owned by the Department of Forests and the 3 helicopters which are hired by the Ministry of Interior will contribute to the maximum in fire fighting.
- A call for tenders for the installation of an automatic fire detection system at Akamas forest, aiming at the early detection and rapid intervention was published. The award procedure is expected to be concluded early next year.
- The "Save our Forests Week" was celebrated from 2nd to 9th April. During the week a press conference was given by the Minister of Agriculture, Natural Resources and Environment. In addition, a campaign for voluntary blood donation by the personnel of the Department took place.
- Lectures on prevention and suppression of fires were given to the National Guard, the Police and the public. In addition, extensive publicity was made through the mass media.

- Training of the Fire Fighting Task Force, the Rapid Intervention Fire Fighting Units, the Civil Defense and the Search & Rescue Team also took place.

In 2008, 39 forest fires broke out in state forests burning an area of 13,31 ha. The largest fire occurred at Ora area at Larnaka, and burned an area of 4 ha state forest.

In addition, the Department participated in the fighting of 165 fires which occurred in private and halilands adjacent to state forests which burned an area of about 2 890 hectares.

The causes of forest and rural fires were as follows:

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|--|-----|
| • Agricultural operations i.e. burning of stubble or weeds | 24% |
| • Carelessness of visitors / travelers | 11% |
| • Military operations | 2% |
| • Illegal kindling of fire from country houses | 8% |
| • Hunting | 3% |
| • Short circuit of high voltage electric wires | 3% |
| • Other causes (use of electric equipment, carelessness of children, etc.) | 2% |
| • Burning of rubbish | 2% |
| • Malicious | 10% |
| • Natural Causes (lightning) | 18% |
| • Unknown Causes | 17% |

The Department takes all precautionary measures against forest fires and uses all possible efforts to minimise the number of fires. However, this is not feasible without the cooperation of the public. Therefore, the Department of Forests invests in the enlightenment of the public, forest visitors and especially farmers. However, offenders are usually prosecuted.

(b) Fire Protection Plan for Rural Areas

The Department continued the implementation of the Fire Protection Plan for rural areas which started in 2001. During 2008, 4,9 km of vehicle tracks, 1 water tank and 1 hydrant were constructed. In addition, roads and fire breaks were improved or maintained.

The works in total carried out since the inception of the Plan were as follows: 77,87 km of new vehicle tracks, 448,94 km of fire breaks, 11 water tanks, 3 observation points, 4 helispots and 48 hydrants.

(c) Protection against insects

Spraying from the air continued during the year under review against the pine processionary moth caterpillar (*Thaumetopoea wilkinsonii* Tams), with the new airplane that the Department obtained in 2006. Spraying was done using *Bacillus Thuringiensis* (Foray 48B) and Tracer 48SC which are considered harmless to the environment.

6. EXPANSION OF FORESTS AND REFORESTATION

An area of 136 ha was reforested during the year under review including forest and haliland. 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 carried out only in special cases. Also, the reforestation works at Saittas and Pipis area continued. Particular reference should be made to the flood prevention works, carried out parallel to reforestation works, for the protection of communities and agricultural land from flooding. This was the first time that flood prevention works were carried out in such a scale.

The study for the location of halilands suitable for afforestation was completed during the year under review. One thousand hectares were located, mapped and proposed to the Ministerial Committee to be declared as state forest.

In addition, the works concerning the reforestation / restoration of the environment at Amiantos Asbestos mine, initiated in 1995 continued. The hydroseeding method used in 2003 continued with very good results.

7. NATURE CONSERVATION

During 2008, the Department contributed significantly towards the effort undertaken by the Ministry of Agriculture, Natural Resources and Environment for nature conservation.

The Department of Forests intensified its efforts through the organisation of lectures, voluntary work, ceremonies and speeches through radio and TV for expansion of tree planting and protection of nature.

Both Athalassa and Troodos Environmental Information Centers continued their operation successfully. A total of 16 398 and 6 506 people visited the Troodos Environmental Information Center and the Athalassa Environmental Information Center respectively. As from September 2008, in close collaboration with the Ministry of Education, the Athalassa Environmental Information Center is operated as an Environmental Education Center. The construction of a new building for the Education Center continued and is expected to be completed in 2009.

During the review year, the final architectural plans for Cape Greko Environmental Information Center were prepared and an application for financing through the Rural Development Programme 2007 – 2013 was submitted.

The effort for the study, protection and systematic recording of the Cyprus indigenous and endemic plant species continued as did the completion of the botanical collection of the Department.

In 2008, the preparation under a “LIFE – NATURE” project of management plans for four “Natura 2000” sites continued. Most of works undertaken by the Department of Forests under the actions of this project, were completed. Even though this Project was completed on 31/10/2008, some of its actions will continue to be funded by the national budget.

During the year, the works for the creation of Troodos Arboretum at Amiantos area, as well as the works for the Arboretum at Akamas, continued.

The efforts to identify, protect and maintain tree monuments continued.

As in previous years, particular emphasis was given to the protection and reproduction of the Griffon Vulture, (*Gyps fulvus*), the wild population of which numbers 18 individuals. In addition, the work for the study of Cyprus bats, started in 2006, continued.

8. FOREST RECREATION

The creation of new, and the development and maintenance of existing, picnic and camping sites continued in 2008. During the year, 43 picnic sites with a capacity of 23 300 persons and 3 camping sites with a capacity of 290 tents were available to the public. These sites were fully occupied during the summer high season.

During 2008, the construction works for one new nature trail (Trooditissa – Hantara – Fini), and one viewpoint (Platres – Troodos road), were completed. Also the camping sites at Platania and Stavros tis Psokas were upgraded. These works were financed by the Rural Development Programme. Also during the year under review, the Department submitted 9 new applications in the Rural Development Programme 2007 – 2013.

Within the framework of the policy for the development of National Forest Parks, the Department continued the implementation of the plans, as well as the maintenance works in all Forest Parks.

During the reporting year, various works for the maintenance and improvement of nature and hiking trails in the state forests were carried out. Great interest was shown from local and foreign visitors for the trails.

9. TIMBER PRODUCTION AND DISPOSAL

During the year under review, timber extraction and supply to local sawmills continued in a satisfactory way. The volume extracted from state forests was 4 372 m³ R.O.B. From this volume, 2 799 m³ R.O.B. were extracted from the burnt Saittas area.

In addition to the above, timber from state forests equivalent to 5 748 m³ R.O.B. was extracted as firewood. From this volume, 3 570 m³ R.O.B. were extracted from Saittas.

During 2008, the Department issued 18 sawmill permits.

10. FOREST MANAGEMENT

The management of forest resources is based on the principle of sustainability. The strategic objective is the maximisation of social and economic benefits from the forests through their multiple use, maintaining, at the same time, the naturalness and improving their composition and structure.

In 2008, the fieldwork for the Management Plan for Machairas forest was completed. The drafting of the Management Plan began in the year under review and is expected to be completed in December 2009. Also the fieldwork for the development of Pafos Forest management plan began. The preparation of this plan is co-financed by EEA (European Economic Area) and it will be materialised through the purchase of services. It is expected to be completed in the first half of 2011.

In the year under review, necrosis of trees were observed due to drought in the eastern region of Troodos range and mainly in the areas of Kornos, Kakoratzia, Stavrovouni, Machairas, Athalassa and Larnaka. The problem of drought was very serious in some areas and were not limited only to reforestations but it also affected natural stands. Lighter problems were observed also at Pafos and Troodos forests, mainly at low altitudes. The drought affected a big number of species like: *Pinus brutia*, *Pinus halepensis*, *Pinus pinea*, *Acacia*, *Cypress*, *Arbutus andrachne*, *Quercus alnifolia*, *Crataecus azarolus*, *Olea europaea*, etc.

11. SILVICULTURE

During the year under review, emphasis was given in tending operations of forest stands. Tending operations were carried out in 702,8 ha of young plantations. The seed collected during the year, together with the stock of last year, was adequate to cover both the Departmental needs and requests for export. A total quantity of 2 476 kg of seed was collected. A small fraction of this quantity was exported.

Additionally, for the reforestation / restoration of environment at Amiantos Mine and Saittas burnt area, a quantity of 202 kg of various seeds was collected.

The production of seedlings in the departmental nurseries was adequate. A total of 233 760 seedlings were raised compared to 307 592 in 2007. The seedlings produced in

2008, plus the stock of 2007, amounted to 780 502. Out of the total quantity, 58 752 were used departmentally, 84 873 were sold to the public, 12 389 were sold to other Government Departments, and 39 245 were donated to schools, village authorities and other organisations and institutions for planting on public or communal lands.

12. FOREST COMPUTERISATION

Thirty laser printers A4, one computer and one server were received in 2008. At the end of the year, the Department had at its disposal 156 computers as well as sufficient software applications used effectively in a different number of areas including digitalising of forest maps, creation of databases, etc.

During the year under review, the English and Greek pages of the Department of Forests website were updated.

13. FOREST ENGINEERING

a) Forest Roads

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

During the year under review the following roads were improved and asphalted: 4,80 Km of Kato Amiantos – Mesa Potamos – Platres road, 1,80 Km of Spilia – Saranti road and 0,98 Km of Machairas – Kionia – Vavatsinia road. Also the maintenance, widening and improvement of existing roads continued and 7,87 km of vehicle tracks and 3,16 km of extraction roads were built.

The total mileage of the forest road network by the end of 2008 was 1 433,49 km of main forest roads out of which 141,58 km are asphalted, 996,14 km are vehicle tracks and 1 215,88 km are extraction roads.

b) Forest Telecommunications

The Department maintains a well-organised telecommunications network for proper forest protection and management. This telecommunication system at the end of 2008 included the following:

- 364,51 km of telephone lines
- 1 292,25 km of telephone cable
- 370 telephone handsets
- 10 cellular telephones
- 2 telephone switch-boards
- 1 VHF. control station
- 543 mobile radiotelephones
- 623 portable radiotelephones
- 3 radiotelephone repeaters

c) Forest Buildings

During the year under review, the following works were carried out:

- Construction of a store at Gialia forest station
- Construction of three garages, one at Geroskipou forest station, one at Rizoelia forest station and one at Forestry College.
- Construction of four sheds at Agios Nikolaos and Platania forest stations and at Platania and Fasouri forest nurseries.

In addition, usual repairs and maintenance works were carried out to various forest buildings.

d) Machinery and Vehicles

The operation of the workshop at Athalassa for the maintenance of motor vehicles and machinery was continued during the reporting year.

The Department was equipped with two additional fire fighting vehicles. Also, various minor machinery, equipment, tools and instruments were purchased including 20 chainsaws, 4 extended chainsaws, 1 electric chainsaw, 1 water pump, 1 auto lawn grass

mower, 5 mechanical hedge trimmer, 4 electric concrete mixers, 1 electric generator, 1 branch chipping machine, 1 machine for filling the cracks in asphalted roads and 1 multiuse machine VIPER 3H.

Except from the government vehicles and machineries, the Department of Forests, in 2008, rent from private sector through tenders, vehicles and machineries like trucks, tankers, bulldozers, agricultural tractors, diggers, lifting vehicles, etc. for the execution of various forestry works.

14. FORESTRY EDUCATION

In 2008, the Cyprus Forestry College completed its fifty-seventh academic year. Eight students, five Cypriots and three from Maldives graduated during 2008.

The new academic year began on 2nd October with a complement of 15 students out of whom 12 were Cypriots and 3 from other countries.

A number of officers of the Department participated in various international conferences, seminars, etc. and others attended educational programmes both in Cyprus and abroad. In addition, the Department organised, at the Cyprus Forestry College, refresher courses on various topics for the training of its staff and a large number of officers participated.

15. FORESTRY RESEARCH

Forest Research 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, the use of mycorrhiza at reforestation works of old quarries and mines, the protection of forests against insects and diseases, etc.

In addition, a study was prepared on the immediate measures to combat the effects of drought on forests. Also a decision was taken for the preparation of an action plan for the adaptation of forests to climatic change.

16. PROVISION OF EMPLOYMENT TO FOREST VILLAGES

Under the socio-economic policy of the Government, which is also implemented through the activities of the Department, employment was provided to the inhabitants of forest villages. The total employment, offered to both casual and regular employees, was 156 336 work days. Besides the staff 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. 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 sites, etc.

17. EUROPEAN UNION AFFAIRS

a) Subjects discussed in EU Institutional Bodies

The main subjects discussed in the Institutional bodies of the EU during the year 2008 were the following:

- EU preparation regarding the international forest dialogue (8th session of United Nations Forum on Forests – UNFF8).
- The accession of EU to the new International Tropical Timber Agreement – ITTA2006.
- The EU FLEGT Action Plan:
 - The completion of the discussion and the adoption of Regulation (EC) 1024/2008 laying down detailed measures for the implementation of Council Regulation (EC) No. 2173/2005.
 - The proposal for a Regulation of the European Parliament and of the Council laying down the obligations of operators who place timber and timber products on the market.
 - The negotiations on the conclusion of FLEGT voluntary partnership agreements.

- Implementation of the 2008 and preparation of 2009 Programme of Work of the Standing Forestry Committee concerning the implementation of EU Forest Action Plan. In this direction / framework, the Department of Forests participated in the Working Group of the Standing Forestry Committee on valuation and compensation methods of non-wood forest products and services.
- The interim evaluation of EU Forest Action Plan.
- The inclusion of wood and wood products in the Directives on “Green Public Procurement”.
- The discussion of several forest issues under Regulations that are not directly relevant to forests (Rural Development, LIFE+, etc).
- The results of a feasibility study on means of combating forest die-back in the European Union.
- Forest fires issues:
 - Communication from the Commission on reinforcing the Union’s disaster response capacity.
 - Communication towards a comprehensive Community strategy for the prevention of natural and anthropogenic disasters.
- The exploration of the potential added value of and possible options for a legally binding agreement on forests in the pan-European region (MCPFE initiative).
- The organization of the European Forest Week 2008.

b) Harmonization with the Acquis Communautaire

- Officers from the Department of Forests and the Department of Customs, in the framework of an ad hoc working group, continued their work on the preparation of a draft proposal for a national legislation for harmonization with Commission Regulation 1024/2008, laying down detailed measures for the implementation of Council Regulation (EC) 2173/2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community.
- The national process for the ratification of the International Tropical Timber Agreement, (ITTA2006) has been completed with the adoption by the House of Representatives, of the (Ratifying) Law of 2008 (Law 11(III)2008) concerning the

International Tropical Timber Agreement, on the 12th of June, 2008. The relevant ratifying documents for ITTA2006 Agreement are expected to be submitted to the Secretary General of the United Nations, simultaneously by all EU Member States, in 2009.

- For the implementation of the Decision of the Parliament and the Council (Decision 714/2007/EC of the 20th of July, 2007), the House of Representatives adopted the Law 35(I)2008 concerning the classification of wood in the rough (repealing Law), which repealed the National Law 48(I)2002 on the classification of wood in the rough, as from the 31st of December 2008.

c) Implementation of programmes co-financed by the European Union

• Rural Development Programme

The implementation of the Rural Development Programme covering the period 2004 - 2006 was continued. The Department is the competent authority of the following three 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 functions of forests"

Concerning the implementation of the Rural Development Programme covering the period 2007 – 2013 the following activities were carried out:

- The implementation of the works under the Measure 2.5 "Restoring forestry potential and introducing prevention actions" continued.
- During 2008, there was the first call for applications for the following two Measures:

2.4 "Afforestation"

2.6 "Maintenance and enhancement of the social and ecological role of forests"

The total number of applications received was 39 for the Measure 2.4 and 63 for the Measure 2.6.

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

In 2008, the implementation of the National Programme regarding the Monitoring of Forests and the Environmental Interactions in the Community continued. The programme covers activities related to atmospheric pollution and forest fires. In the frames of this programme, the elements of the two projects “Biosoil” and “Biodiversity” were submitted to JRC (Joint Research Center).

d) Implementation of Acquis communautaire

- **Implementation of Directive 2000/29/EC on protective measures against the introduction into and spread within the Community of organisms harmful to plants or plant products.**

For the implementation of Directive 2000/29, the systematic inspections of the permanent sample plots were continued in 2008 in order to investigate the presence or absence of the pine bark beetle, *Ips sexdentatus*, for which Cyprus has been recognized as a protected area as well as of the fungus *Seiridium cardinale* that causes the cypress ulcer disease and for which Cyprus made strong efforts to be recognized as a protected area. These investigations proved the absence of both harmful organisms from Cyprus.

In addition, following the European Community Decisions 2003/127/EC, 2004/426/EC and 2006/464/EC, Cyprus carried out annual inspections for the presence of pine wood nematode (*Bursaphelenchus xylophilus*), the fungus *Phytophthora ramorum* which infects mostly *Quercus* spp. as well as other broadleaved species, the insect *Dryocosmus kuriphilus* which infects *Castanea* spp. and the fungus *Gibberela circinata* which infects pines. All inspections during 2008 proved their absence from Cyprus.

- **Implementation of Directive 1999/105 on the Marketing of Forest Reproductive Material**

The implementation of the 2003 Regulation 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.

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