

# **ANNUAL REPORT OF THE FORESTRY DEPARTMENT FOR THE YEAR 1999**

## **1. 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.
- 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.

## **2. EXPENDITURE**

With a view to achieve the above targets £5.786.521 and £5.998.600 were approved in the Ordinary and Development Budgets respectively. The total amount spent out of both Budgets was £9.974.519 (i.e. about 84,6%).

### 3. REVENUE

Apart from the non-wood benefits from the forests, that their monetary valuation is difficult, an amount of £1.160.549 was collected by the Forestry Department as revenue in 1999. An additional amount of £393.076, out of which £14.995 represents forest products sold on credit and the rest (£378.081) lease of forest land, is still to be collected.

### 4. FOREST PROTECTION

The protection of existing forests against fires, especially during the prolonged dry and hot summers, is the principal concern of the Forestry Service. The following fire protection measures were taken during the year under review:

- a) A Fire Fighting Task Force consisting of 140 members was in operation. Its members were employed on various forest operations at strategic points in the forest, being at the same time on call at any time through radio telephone.
- b) During the summer months fourteen Fire Look-Out Stations, found on high peaks in the forests, were manned in order to detect and report forest fires; thirteen of them were functioning on a 24-hour basis and the other one only during day time.
- c) About 17,64 km of forest roads were constructed and 62,42 km were widened or improved. In addition 7,69 km of vehicle tracks and 41,88 km of extraction roads were constructed, which serve also as fire traces.
- d) Two water tanks at Troodos Division were constructed and five new hydrants were installed on pipes which pass through the forest and on water tanks, to supply water in the event of a fire, to the Departmental fire engines.
- e) Daily mobile patrols in the forest, especially along the delimitation line, were carried out throughout the summer months, warning and advising villagers and others against forest fires.
- f) The "Save our Forests Week" which was initiated in 1985 was celebrated again in May 1999. 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 mechanisation for the extinction of forest fires, was successfully continued. At present, the Department has at its disposal 32 fire engines, 22 fire patrolling vehicles and 103 fire pumps of various types.

i) In spite of the measures taken in 1999, 20 forest fires broke out (5 were caused from lightning) and burnt a forest area of 3 ha. It is worth mentioning that the year under review was the 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 Karterouni area (Adelfoi Forest) and burnt an area of one ha.

Also the Department assisted in the control of fires in private and government lands especially those endangering the state forests. Those fires burnt an area of about 3 960 ha.

The usual protection measures were taken against illicit grazing and other offences, which were limited.

Spraying from the air was continued during the year under review against the pine Processionary caterpillar, using Bacillus thurigiensis and Dimilin.

## 5. REFORESTATION

An area of 233 ha was reforested, while an area of 12 ha which was cultivated will be sown or planted in 2000. The total amount spent on reforestation was £183.144.

Reforestation was not only carried out in Pafos, Troodos, Adelfoi, Limassol and Machairas forests but also in other bare areas such as Oreites, Agia Napa, Pipis, Potamos tou Liopetriou, Archaggeloudi I, Avgorou, Athalassa, Lympia and Xylotymvou.

Nine bulldozers were employed almost continuously for ground preparation, one of which was Menzi-Muck suitable for climbing and working on steep slopes and a big number of labourers were 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 25 753 m<sup>3</sup> R.O.B. of timber was extracted from various state forests and sold to the Cyprus Forest Industries Co. Ltd. (C.F.I.), and to private individuals, for the production of constructional timber, chipboard, box-shooks etc. Out of the above volume, a quantity of 25 531 m<sup>3</sup> R.O.B. was stemwood and 222 m<sup>3</sup> R.O.B. was branchwood which was sold to the C.F.I. for the production of chipboard. The revenue of the Department from timber sales was about £501.235. Furthermore, timber valued at £14.995 was sold to the Cyprus Forest Industries Co. Ltd., on credit.

In addition to the above, timber equivalent to 7 414 m<sup>3</sup> R.O.B. was extracted as firewood from the state forests and an amount of £53.873 was collected.

The Forestry Department issued 31 sawmill permits during 1999.

## **7. FOREST MANAGEMENT**

- a) The Forestry Department with the assistance of FAO experts completed the preparation of a "National Forest Programme" for Cyprus Forests, which was initiated the previous year and covers the ten year period, 2000-2009.

The main objects of the Programme are :

- The forest development,
- The forest management on a sustainable basis,
- The rationalist and prudent multiple use of forests and
- The harmonization of Forest Policy with that of European Union.

The Programme consists of the following three parts :

I. The Rural Betterment Strategy. This strategy will be achieved by :

- Action to protect and enhance water supplies, wildlife and the national heritage in State forests,
- Afforestation and the restoration of degraded land in the wider countryside,
- Safeguarding as national parks and nature reserves, particular places which have outstanding scenery, cultural importance, exceptional ecological or scientific interest, and developing them for recreation and tourism where this does not conflict with conservation aims; these sites will be delineated both inside and outside the State forests,
- Encouraging, guiding and controlling recreation and tourism development through Local Plans, zoning and development permits, in conformity with Town and Country Planning Regulations, on the strict proviso that State forests will on no account be used for building development,
- Providing information and publicity about the forests and the flora and fauna they contain, directed particularly at schools, colleges, tourists and the general public, using up-to-date information technology and interpretation techniques.

II. The Projects and Activities Programme. It contains seven sub-programmes, each consisting of several projects, and they deal with the following groups of activities :

- Afforestation and silviculture,
- Production of timber and non-wood products,

- Protection against fires and other hazards,
- Conservation of ecosystems, flora, fauna and heritage,
- Water,
- Local plans and village development,
- Institutional reform, modernization and capacity building.

III. The New National Forest Policy Statement, which will replace the previous official policy statement.

By the beginning of the new year, the National Forest Programme was submitted to the Ministry of Agriculture, Natural Resources and Environment for approval by the Council of Ministers.

- b) The inventory/mapping of forest cover in private lands which was started during 1996, aiming mainly to the preparation of a plan for its protection from fires, was completed in 1999.
- c) During 1999, a total of 30 permanent sample plots in young plantations of Pinus brutia found in Pafos Forest were re-measured for growth studies. The various desired parameters such as volume, mean diameter, mean height, mean height of usable timber etc. will be determined in 2000 with the help of a computer.
- d) For the preparation of a Management Plan of Tripylos Nature Reserve, the inventory of the woody vegetation which was started in 1998, completed in 1999. Enumeration was carried out on 172 permanent sample plots. After the completion of the field work the study and analysis of collected data with the help of a computer was continued and the Management Plan is expected to be completed next year.
- e) Twenty nine computers were received while seven old model ones were withdrawn. At the end of the year the Department had at its disposal sixty one computers as well as, a sufficient number of programs used effectively in a different number of applications.
- f) During the year, 1 151 ha of forest land were leased for Agricultural and Animal husbandry purposes. By the end of the year twenty three quarry licenses and two mining licenses were in force in state forests.

## 8. SILVICULTURE

During the year under review, emphasis was given to the watering and other silvicultural treatments of plants planted on an area of 91 ha, especially in the plains, spending a significant amount from the funds available for silviculture. Silvicultural operations (thinning, cleanings, etc.) were carried out in an additional area of about 698 ha. The total amount spent was £135.488.

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 quantity of about 1 352 kg of seed was collected at a total cost of £14.348. A quantity of 14,10 kg was exported at a revenue of £287.

The production of seedlings in the Departmental nurseries was adequate. A number of 369 902 seedlings were raised compared to 338 112 in 1998. The seedlings produced in 1999 plus the stock of 1998 amounted to 1 059 768. Out of the total quantity, 47 773 were used Departmentally, 227 960 were sold to the public or other Government Departments, and 43 442 were issued free of charge to schools, village authorities and other organizations and institutions for planting on public or communal lands. In 1999 due to drought, no plants were issued free of charge to private individuals, for forestation of privately owned properties.

## **9. FORESTRY EDUCATION**

The Cyprus Forestry College completed in 1999 its 48th Academic year. Four Cypriot and eleven foreign students, obtained their Diploma in Forestry. The six-month Post-Diploma course was not organised because there were no candidates from abroad.

The 49th Academic year began on the 1st October, 1999 with a complement of 14 students out of whom 11 were Cypriots and 3 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 the Forestry Department Staff and a large number of officers participated. Furthermore six Cypriot foresters under the European Union Programme "Leonardo da Vinci" participated in a three month study visit to U.K.

## **10. FORESTRY RESEARCH**

Forest Research and Publicity were continued on the same lines as in past years, against an expenditure of £21.864.

In summary, research dealt with the production of genetically improved seed of *Brutia* pine, the maintenance and improvement of the Arboretum and Tree Bank, and with protection of forests against insects and diseases.

## 11. NATURE CONSERVATION

The Department of Forests during 1999 contributed greatly towards the effort undertaken by the Ministry of Agriculture, Natural Resources and Environment for Nature Conservation, through various activities, the main ones being 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 the construction work for Troodos Environmental Information Center was completed while that for Athalassa Environmental Information Center was continued. The Troodos Information Center is expected to start functioning next year.
- 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.  
In 1999, the description of the new endemic plant species that is of *Erysimum kykkoticum* (localized in 1997) was published in a botanical magazine, bringing the total number of endemic species to 140.
- d) The efforts to spot and protect Tree Monuments were intensified. For the maintenance and protection of Tree Monuments an amount of £1.650 was spent.
- e) During 1999, 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.
- f) The effective protection of the Cyprus moufflon (Ovis gmelini ophion) continued and the animal remains on the increase.

## 12. FOREST RECREATION

An amount of £94.585 was spent for the creation, improvement and extension of picnic and camping places. In addition £114.516 were spent for the maintenance and cleaning of the picnic and camping places within the forests.

In 1999, the work started in 1991 for the implementation of the Development Plan for the entire Athalassa National Forest Park was continued.

Also, during the year under review, the work for the implementation of the Development Plans for the Paedagogical Academy, Troodos and Polemidia National Forest Parks was continued.

Furthermore a Provisional Development Plan was prepared for the Rizoelia National Forest Park and submitted to the Ministry of Agriculture, Natural Resources and Environment for approval.

The total amount spent for the establishment, development and maintenance of National Forest Parks during 1999 was £328.266.

A path of length of 1,60 km at a cost of £1.005 was constructed by the Forestry Department in Adelfoi Forest, locality "Moutti tis Choras", from Departmental Funds. Furthermore, a new Nature Trail at Madari (Mavra Dasi) of a length of 1,20 km was constructed; also the work for the completion of Prodromos Nature Trail which started in 1998 was continued. The total cost of £13.982 was defrayed by the Cyprus Tourism Organisation.

For the maintenance and improvement of Nature Trails and Paths constructed in state forests an amount of £29.214 was spent.

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.

### **13. 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:

- 17,64 km of forest roads at a cost of £208.224.
- 7,69 km of vehicle tracks at a cost of £22.479.
- 41,88 km of extraction roads at a cost of £145.031.

Furthermore 62,42 km of road widening or improvement was carried out and 8,00 km were asphalted at a total cost of £1.202.358.

The total length of the asphalted forest roads by the end of the year was 52,58 km.

In addition 1 400 km of roads, 829 km of vehicle tracks and 1 061 km of extraction roads, were maintained at a cost of £208.578.



The total mileage of the forest road network by the end of 1999 was 1 417,84 km of forest roads (including asphalted roads), 836,32 km of vehicle tracks and 1103,17 km of extraction roads.

## **b) Forest Telecommunications**

The Forestry Department maintains a well-organised telecommunication network for proper forest protection and management. An amount of £60.227 was spent for its maintenance and an amount of £26.844 was spent for its extension and improvement. This telecommunication system at the end of 1999 included the following:

- 368,37 km of telephone lines
- 371 telephone instruments
- 1 mobile telephone
- 15 Cellular telephones
- 8 paging apparatus
- 6 telephone switch-boards
- 20 V.H.F. radio links
- 1 V.H.F. control station
- 350 mobile radiotelephones
- 435 portable radiotelephones
- 5 radiotelephone repeaters.

## **c) Forest Buildings**

During the year under review, a new house at Lysos Forest Station, a store at Stavros Forest Station, an outhouse at Polemidia National Forest Park were built. In addition the building of an office at Agia Marina Forest Station and one room at Panagia Forest Station was completed. Furthermore a shed at Stavros Forest Station was constructed. Also, major improvements were carried out at Polemidia and Agios Nikolaos Forest Stations and on one room at the Forestry College against a total expenditure of £37.117.

Usual repairs and maintenance were carried out to various forest buildings, at a cost of £119.009. Equipment for various forest stations was purchased at a cost of £12.584.

#### **d) Machinery and Plant**

During 1999 minor machinery and equipment of a value of £44.461 was purchased. For the running and maintenance of all machinery and vehicle (including fuel and lubricants but excluding the wages of drivers) an amount of £139.452 was spent.

The Forestry Department received during the year two new fire brigade lorries and thirteen vehicles.

### **14. 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 86 580 work days.

Besides the labourers employed directly by the Forestry Department, an additional number of woodcutters was 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 6 633 work days.

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

### **15. HARMONISATION WITH ACQUIS COMMUNAUTAIRE**

During the year under review the screening process of the acquis communautaire was completed. The main findings of this process are as follows :

- The administrative structure to transpose and implement the acquis is in place but there is a need to establish a Section to deal with all European Union related matters.
- There is a need to transpose in our legislation the following three Directives :
  - Directive 93/77 on the protective measures against the introduction of organisms, harmful to plant or plant products and against their spread.
  - Directive 89/68 on the classification of the wood in the rough.
  - Directive 105/99 on the marketing of forest reproductive material.

- There are four issues to be raised during negotiations as follows :
  - Cyprus should be excluded so that the support related to rural development to be granted to state forests, too.
  - Cyprus should be treated as protected zone for a number of different harmful organisms
  - As regards the marketing of forest reproductive material, the list of species covered by this Directive should be expanded to include species growing in Cyprus.
  - Inclusion of Cyprus in the list of areas of the Community that can be classified as areas of high risk.

## **16. ACKNOWLEDGEMENT**

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