

ANNUAL REPORT OF THE FORESTRY DEPARTMENT FOR THE YEAR 1998

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 £5.422.283 and £6.569.500 were approved in the Ordinary and Development Budgets respectively. The total amount spent out of both Budgets was £10.748.698 (i.e. about 89,6%).

In addition, through the Scheme of the United Nations High Commission for Refugees (U.N.H.C.R.) an amount of £25.235 was approved and spent for various development projects such as reforestation, silviculture, roads and fire traces, fire prevention measures, the purchase of vehicles/machinery as well as the organization of seminars.

3. REVENUE

Apart from the indirect benefits of the forests, which cannot be calculated in terms of money, an amount of £1.049.671 was collected by the Forestry Department as revenue in 1998. An additional amount of £298.667, out of which £25.960 represents forest products sold on credit and the cost for the felling and transport of part of the timber delivered to the Cyprus Forest Industries Co. Ltd. and the rest (£272.707) 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 18,53 km of forest roads were constructed and 20,95 km were widened. In addition 23,92 km of vehicle tracks and 46,48 km of extraction roads were constructed, which serve also as fire traces.
- d) Two water tanks, one at Pafos Division and one at Troodos Division were constructed and three 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 1998. 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 30 fire engines, 22 fire patrolling vehicles and 102 fire pumps of various types.

i) In spite of the measures taken in 1998, 19 forest fires broke out (3 were caused from lightning) and burnt a forest area of 566 ha. Most of the fires were put under control almost immediately after they broke out; the largest of them occurred at Pyrgos-Ampelikou area (Pafos Forest) near the buffer zone and burnt an area of 510 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 4 764 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 249 ha was reforested, while an area of 15 ha which was cultivated will be sown or planted in 1999. The total amount spent on reforestation was £201.214.

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 and II, Sotira, Athalassa, Ormideia 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 24 607 m³ 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 24 349 m³ R.O.B. was stemwood and 258 m³ 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 £414.764. Furthermore, timber valued at £25.960 was sold to the Cyprus Forest Industries Co. Ltd., on credit.

In addition to the above, timber equivalent to 7 606 m³ R.O.B. was extracted as firewood from the state forests and an amount of £51.440 was collected.

The Forestry Department issued 30 sawmill permits during 1998.

7. FOREST MANAGEMENT

- a) During 1998, the inventory/ mapping of forest cover in private lands was continued, aiming mainly to the preparation of a plan for its protection from fires.
- b) The study for the natural regeneration of *Pinus brutia* in Cyprus which was started during 1996, in co-operation with the Forest Research Institute of Thessaloniki, was continued and completed in 1998.
- c) During 1998, a total of 17 permanent sample plots in young plantations of *Pinus brutia* found in Pafos and Adelfoi Forests 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 1999 with the help of a computer.
- d) For the preparation of a Management Plan of Tripylos Nature Reserve, an inventory of the woody vegetation was started. 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 initiated and it is expected to be completed the next year.

- e) The Forestry Department with the assistance of FAO experts initiated the preparation of a "National Forest Programme" for Cypurs Forests.

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.
- f) The Forestry Department received another twelve computers while thirteen computers of old models were put out of use. At the end of the year the Department had at its disposal thirty nine computers as well as, a sufficient number of programs which are used very effectively.
- g) During the year, 1 151 ha of forest land were leased for Agricultural and Animal husbandry purposes. By the end of the year twenty five quarry licences and two mining licences were in force in state forests.

8. SILVICULTURE

During the year under review, among other silvicultural treatments, emphasis was given to the watering of plants planted on an area of 81 ha, especially in the plains. Enough of the funds for silviculture were spent for this purpose. Additionally, an area of about 1 064 ha was treated silviculturally (thinnings, cleanings etc). The total amount spent was £128.342.

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 903 kg of seed was collected at a total cost of £13.568. A quantity of 7,50 kg was exported at a revenue of £132.

The production of seedlings in the Departmental nurseries was adequate. A number of 338 112 seedlings were raised compared to 466 408 in 1997. The seedlings produced in 1998 plus the stock of 1997 amounted to 917 351. Out of the total quantity, 72 494 were used Departmentally, 112 726 were sold to the public or other Government Departments, and 35 712 were issued free of charge to schools, village authorities and other organizations and institutions for planting on public or communal lands. Also, 7 785 plants were issued free of charge to private individuals for forestation of privately owned properties.

9. FORESTRY EDUCATION

The Cyprus Forestry College completed in 1998 its 47th Academic year. Fifteen Cypriot and three foreign students, obtained their Diploma in Forestry. One six-month Post-Diploma course was also organised and two candidates from abroad obtained the Higher Diploma in Forestry.

The 48th Academic year began on the 1st October, 1998 with a complement of 26 students out of whom 15 were Cypriots and 11 from other countries.

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

10. FORESTRY RESEARCH

Forest Research and Publicity were continued on the same lines as in past years, against an expenditure of £18.832.

Research mainly dealt with forest genetics for production of good quality seed through the establishment of Seed Orchards, with the establishment and maintenance of a Tree Bank and two Arboreta and with the control of insects and fungi.

11. NATURE CONSERVATION

The Department of Forests during 1998 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) 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.
- c) The efforts to spot and protect Tree Monuments were intensified. For the maintenance and protection of Tree Monuments an amount of £1.091 was spent.

d) During 1998 an 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 was initiated.

e) The Council of Ministers in February 1998 declared an area of 97 ha at Rizoelia State Forest into a National Forest Park.

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 £89.790 was spent for the creation, improvement and extension of picnic and camping places. In addition £114.248 were spent for the maintenance and cleaning of the picnic and camping places within the forests.

In 1998, the works which started in 1991 for the implementation of the Development Plan for the entire Athalassa National Forest Park were continued.

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

The total amount spent for the establishment, development and maintenance of National Forest Parks during 1998 was £307.814.

Two paths, one at Spilia and one at Platania (Troodos Forest) of a length of 0,82 km and 0,54 km respectively were constructed by the Forestry Department from Departmental Funds. Another path of a length of 1,00 km was constructed at Athalassa National Forest Park and a total amount of £5.705 was spent. Furthermore another two new Nature Trails, one at Aetomoutti and one at Prodromos of a length of 1,50 km and 4,90 km respectively were constructed. Also, 0,90 km of Damaskinari path was widened. The total cost of £11.595 was defrayed by the Cyprus Tourism Organisation.

For the maintenance and improvement of Nature Trails and Paths, which were constructed in state forests, an amount of £26.726 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:

- 18,53 km of forest roads at a cost of £230.504.
- 23,92 km of vehicle tracks at a cost of £24.365.
- 46,48 km of extraction roads at a cost of £148.711.

Furthermore 20,95 km of road widening was carried out and 26,00 km were asphalted at a total cost of £2.287.327.

In addition 1 382 km of roads, 805 km of vehicle tracks and 1 015 km of extraction roads, were maintained at a cost of £202.011.

The total mileage of the forest road network by the end of 1998 was 1 400,20 km of forest roads, 828,63 km of vehicle tracks and 1 061,29 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 £61.283 was spent for its maintenance and an amount of £24.526 was spent for its extension and improvement. This telecommunication system at the end of 1998 included the following:

- 388,05 km of telephone lines
- 378 telephone instruments
- 1 mobile telephone
- 13 Cellular telephones
- 8 paging apparatus

- 7 telephone switch-boards
- 20 V.H.F. radio links
- 1 V.H.F. control station
- 342 mobile radiotelephones
- 429 portable radiotelephones
- 5 radiotelephone repeaters.

c) Forest Buildings

During the year under review, a new store and one room were built at Fasouri forest nursery and an outhouse at Smigies picnic site, one shed at Platania Forest Station was constructed and the building of a new house at Agia Marina Forest Station was continued. Furthermore the building of a new house at Kapura Forest Station and another one at Panagia Forest Station were started. Also, major improvements were carried out at Vouni Fire Look-out Station and one house at Stavros Forest Station against a total expenditure of £38.445.

Usual repairs and maintenance were carried out to various forest buildings, at a cost of £114.443. Equipment for various forest stations was purchased at a cost of £12.615.

d) Machinery and Plant

During 1998 minor machinery and equipment of a value of £38.819 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 £126.848 was spent.

The Forestry Department received during the year a new bus and one bulldozer.

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 83 980 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 6 443 work days.

15. AID FROM ABROAD

During 1998, through the Scheme of the United Nations High Commission for Refugees (U.N.H.C.R.) an amount of £25.235 was approved for various development projects such as reforestation, silviculture, roads, fire traces/fire prevention, the purchase of vehicles/machinery as well as the organization of seminars.

The work done, which is also included in the respective subjects, was the following:

- **Reforestation**

An area of one ha was reforested, while an area of six ha was beated-up. Also an area of two ha was cultivated against a total expenditure of £7.966

- **Silviculture**

An area of about 50 ha was treated silviculturally at a cost of £5.868.

- **Roads**

About 70 km of forest roads were maintained at a total cost of £647.

- **Fire Traces/Fire Prevention**

About two km of fire traces were maintained. Also for fire prevention purposes the building of a new house at Agia Marina Forest Station was continued and major improvements were carried out at Vouni Fire Look-out Station against a total expenditure of £7.754.

- **Vehicles/Machinery and Other Equipment**

Fire-fighting equipment at a total cost of £3.000 was purchased. Also, a new bulldozer which was ordered the previous year, was received from the Electrical and Mechanical Service.

- **Seminars**

For the organisation of seminars as well as for educational programmes no expenditure was incurred, the year under review from the U.N.H.C.R. Scheme.

16. ACKNOWLEDGEMENT

Warm thanks are expressed to all Ministries and Government Departments for their close co-operation and to 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. Warm thanks are also expressed to the United Nations High Commission for Refugees for its considerable assistance in financing various development projects such as reforestation, silviculture, roads and fire traces, the purchase of vehicles/machinery for fire prevention purposes as well as the organization of seminars. Also warm thanks are extended to the Government of Greece, 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.