# REPUBLIC OF CYPRUS

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

ANNUAL REPORT

OF THE

DEPARTMENT OF FORESTS

FOR THE YEAR

<u> 1995</u>

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# ANNUAL REPORT OF THE FORESTRY DEPARTMENT FOR THE YEAR 1995

#### 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 £4.606.503 and £2.895.400 were approved in the Ordinary and Development Budgets respectively. The total amount spent out of both

Budgets was £7.046.676 (i.e. about 93,9%). In addition, through the Scheme of the United Nations High Commission for Refugees (U.N.H.C.R.) an amount of £328.843 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 £1.587.757 was collected by the Forestry Department as revenue in 1995. An additional amount of £42.632, out of which £13.006 represents forest products sold on credit, £13.180 the cost for the felling and transport of part of the timber delivered to the Cyprus Forest Industries Co. Ltd. and the rest (£16.446) 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 6,35 km of forest roads were constructed and 3,36 km were widened. In addition 18,56 km of vehicle tracks and 52,26 km of extraction roads were constructed, which serve also as fire traces.
- d) Three water tanks, one at Pafos Division and two at Troodos Division were constructed and nine 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 1995. In addition a "Save the Forests Day" was celebrated in all schools of Cyprus, in co-operation with the Ministry of Education.
- 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 24 fire engines, seventeen fire patrolling vehicles and 80 fire pumps of various types.
- i) In spite of the measures taken in 1995, 24 forest fires broke out (4 were caused from lightning) and burnt a forest area of 70 ha. Most of the fires were put under control almost immediately after they broke out; the largest of them occured in Fasouri Forest and burnt an area of 20 ha of low vegetation.

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 3 910 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 <u>Bacillus</u> thuriqiensis and <u>Dimilin</u>.

# 5. REFORESTATION

An area of 187 ha was reforested, while an area of 19 ha which was cultivated will be sown or planted in 1996. The total amount spent on reforestation was £177.115. Reforestation was not only carried out in Pafos, Troodos, Adelfoi, Limassol and Machairas forests but also in other bare areas such as Oreites, Alexigros, Sotira, Xylotympou, Avdellero, Agia Napa, Athalassa, Xylofagou, and Ormideia.

Ten bulldozers were employed almost continuously for ground preparation, two of which were 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 34 563 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 34 037 m3 R.O.B. was stemwood and 526 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 £534.006. Furthermore, timber valued at £13.006 was sold to the Cyprus Forest Industries Co. Ltd., on credit.

In addition to the above, timber equivalent to 10 699 m3 R.O.B. was extracted as firewood from the state forests and an amount of £72.784 was collected.

The Forestry Department issued 39 sawmill permits during 1995.

#### 7. FOREST MANAGEMENT

- a) During 1995, a total of 25 permanent sample plots in young plantations of <u>Pinus brutia</u> 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 1996 with the help of a computer.
- b) The Forestry Department received another eight computers and at the end of the year had at its disposal twenty-nine computers as well as, a sufficient number of programs which are used very effectively.
- c) During the year, 1 216 ha of forest land were leased for Agricultural and Animal husbandry purposes. By the end of the year twenty four quarry licences and three 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 198 ha, especially in the plains. Most of the funds for silviculture were spent for this purpose. Additionally, an area of about 715 ha was treated silviculturally (thinnings, cleanings etc). The total amount spent was £102.893.

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 2 180 kg of seed was collected at a total cost of £10.728. A quantity of 13,50 kg was exported at a revenue of £290.

The production of seedlings in the Departmental nurseries was adequate. A number of 403 916 seedlings were raised compared to 499 004 in 1994. The seedlings produced in 1995 plus the stock of 1994 amounted to 967 185. Out of the total quantity, 202 538 were used Departmentally, 225 318 were sold to the public or other Government Departments, and 59 210 were issued free of charge to schools, village authorities and other organizations and institutions for planting on public or communal lands. Also, 17 989 plants were issued free of charge to private individuals for forestation of privately owned properties. Furthermore, 49 530 plants were granted to the Government of Greece for reforestation purposes due to destructive forest fires broke out in 1995.

# 9. FORESTRY EDUCATION

The Cyprus Forestry College completed in 1995 its 44th Academic year. Eleven Cypriot and three foreign students, obtained their Diploma in Forestry. Two six-month Post-Diploma courses were also organised and two candidates from abroad obtained the Higher Diploma in Forestry. The 45th Academic year began on the 1st October, 1995 with a complement of 34 students out of whom 27 were Cypriots and 7 from other countries.

A two-week educational tour to Greece was organized in May, 1995 for the College students and members of its teaching staff.

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 £10.031.

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 an Arboretum and with the control of insects and fungi.

## 11. NATURE CONSERVATION

The Department of Forests during 1995 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 £949 was spent.
- d) The permanent sample plots which were established on the banks of the Achna Water Reservoir in 1990, with the aim to study the impact of changed water conditions on the development of flora and vegetation were re-measured during the year under review.
- e) The effective protection of the Cyprus moufflon (Ovis gmelini ophion) continued and the animal remains on the increase.

#### 12. FOREST RECREATION

An amount of £72.339 was spent for the creation, improvement and extension of picnic and camping places. In addition £89.627 were spent for the maintenance and cleaning of the picnic and camping places within the forests.

In 1995, 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 and Troodos National Forest Parks were continued.

The total amount spent for the establishment, development and maintenance of National Forest Parks during 1995 was £200.951.

The Forestry Department constructed in Pafos Forest from Departmental Funds a path of a length of 0,80 km at a cost of £204. Furthermore, another new Nature Trail at Vavatsinia of a length of 0,30 km was constructed. Also, the Nature Trail at Spilies tou Digeni was completed by creating another 1,40 km of Trail. The total cost of £8.433 was defrayed by the Cyprus Tourism Organisation.

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:

- 6,35 km of forest roads at a cost of £18.391.
- 18,56 km of vehicle tracks at a cost of £22.508.
- 52,26 km of extraction roads at a cost of £182.680.

Furthermore 3,36 km of road widening was carried out and 2,80 km were asphalted at a total cost of £148.590.

In addition 1 369 km of roads, 761 km of vehicle tracks and 860 km of extraction roads, were maintained at a cost of £149.825.

The total mileage of the forest road network by the end of 1995 was 1 375,20 km of forest roads, 779,77 km of vehicle tracks and 911,79 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 £46.046 was spent for its maintenance and an amount of £13.277 was spent for its extension and improvement. This telecommunication system at the end of 1995 included the following:-

- 394,85 km of telephone lines
- 398 telephone instruments

- -- 1 mobile telephone
- -- 5 Cellular telephones
- -- 8 paging apparatus
- 8 telephone switch-boards
- 20 V.H.F. radio links
- 4 V.H.F. control stations
- 308 mobile radiotelephones
- 363 portable radiotelephones
- 4 radiotelephone repeaters.

# c) Forest Buildings

During the year under review, two new houses were built, one at the Forestry College and one at Agios Theodoros Forest Station. Furthermore the building of a new house at Saittas Forest Station was started. Also, major improvements were carried out at Agios Nikolaos Forest Station, one house at Troodos and one house at Platres Forest Station against a total expenditure of £42.188.

Usual repairs and maintenance were carried out to various forest buildings, at a cost of £88.793. Equipment for various forest stations was purchased at a cost of £7.360.

# d) Machinery and Plant

During 1995 minor machinery and equipment of a value of £21.947 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 £132.513 was spent.

Five new bulldozers were purchased at a cost of £200.109. Their delivery from the Electrical and Mechanical Service will be done at the beginning of 1996.

# 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 70 980 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 11 316 work days.

## 15. AID FROM ABROAD

During 1995, through the Scheme of the United Nations High Commission for Refugees (U.N.H.C.R.) an amount of £328.843 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 three ha was reforested and an area of twenty ha was cultivated against a total expenditure of £18.265.

#### - Silviculture

An area of about 165 ha was treated silviculturally at a cost of £29.920.

#### - Roads

About 140 km of forest roads were maintained and about one km of vehicle truck was constructed at a total cost of £17.560.

# — Fire Traces/Fire Prevention

About 32 km of fire traces were constructed and 174 km were maintained. Paths of a total length of 16,60 km and 133 forest cairns were maintained. Also for fire prevention purposes a new house at Agios Theodoros Forest Station for the accommodation of fire fighters was built, one water tank was constructed and major improvements were carried out at Agios Nikolaos Forest Station and on a house at Troodos against a total expenditure of £56.958.

# — Vehicles/Machinery and Other Equipment

Five new bulldozers were purchased at a cost of £200.109. Their delivery from the Electrical and Mechanical Service will be done at the beginning of 1996.

### — Seminars

For the organisation of seminars as well as for educational programmes an amount of £6.031 was spent.

#### 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 Telecommunications Authority, the Cyprus 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 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 for the scholarships awarded to overseas Secretariat students to study at the Cyprus Forestry College as well as forest officials to study abroad. Last but not least, warm thanks are expressed to all the Forestry Staff, 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.

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