



FORESTRY

Forestry Annual Report 1984-85

Presented to Parliament by Command

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FRONT COVER:

A magnificent specimen of bunya pine silhouetted against the evening sky.

INTRODUCTION BY THE CONSERVATOR OF FORESTS



Conservator of Forests, Mr J. A. J. Smart.

The Honourable W. H. Glasson, M.L.A.,
Minister for Lands, Forestry and Police,
BRISBANE Q 4000

Dear Minister

It is with pleasure that I report to you on the activities of the Department of Forestry for the financial year 1984/85.

The continued general improvement in the national economic climate during the year was reflected in a greater level of activity in the building industry which is, in turn, the principal barometer of the timber industry. Thus there was a welcome continuation of the up-turn in the Department's log marketing activities which had become apparent in the latter part of last year. This improvement is reflected in the statistical comparisons appended to this report of the year's activities of the Department.

Quite apart from its direct revenue implications, this general up-turn in log sales also impacts indirectly on aspects of the department's on-going reforestation programme. In many cases our regeneration and replanting operations are largely dependent on the timber harvesting operation making areas available for this follow-up work. There are obvious advantages from an employment viewpoint in being able to maintain reasonable continuity of activities in the various regions throughout the State.

Of particular concern, however, has been the continuing delay in expansion of the softwood industry to fully utilise the growing volume of timber becoming available from maturing plantations. Wherever a sufficient additional volume of this timber has become available the Department has endeavoured to offer it for sale as an attractive long-term resource package which will facilitate the necessary capital investments for its most effective economic use for the benefit of Queensland. The overlying economic downturn had restricted the rate of this downstream development to some degree but it is pleasing to see the situation is now changing for the better. Several major industrial developments based on our softwood plantations are currently in progress or in an advanced assessment or planning stage.

Following the in-depth review of the Department's management structure and operating philosophy which was concluded in late 1983, considerable effort has continued throughout the year under review to further develop and implement procedures and responsibility levels which genuinely reflect the thrust of that review report. Progressive devolution of decision-making to the lowest possible effective level in the organisation has been implicit in the procedures being developed. This, and establishment of the sub-districts rather than districts as the basic field management unit have been major challenges which have had to be addressed. The dedication and effective involvement of staff members at all levels in these tasks has been very evident and has been greatly valued. Already significant benefits in departmental performance are emerging.

In reporting on what will be my last full year in the organisation I must express my great appreciation of the loyalty to and support for, the forestry ethic of true conservation through balanced and sustainable management of forests which has always been evident throughout the Department during the whole of my period of service.

The great support given by you as Minister has also been of tremendous assistance during a period when forest management both here and throughout the nation has been the subject of much unwarranted and frequently uninformed criticism in the purported name of nature conservation.

Yours faithfully

(J. A. J. SMART)

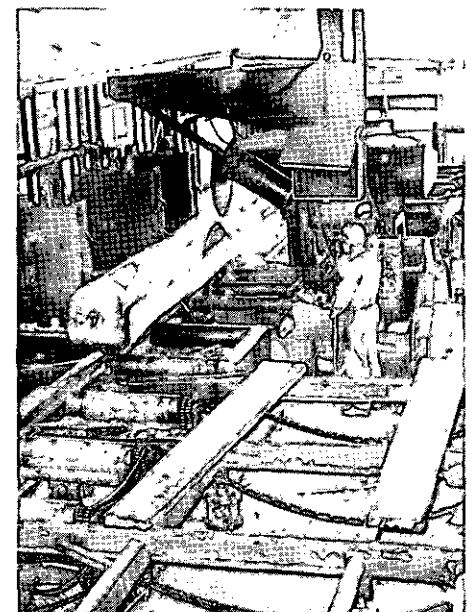
Conservator of Forests

FIVE YEAR SUMMARY

	1984-85	1983-84	1982-83	1981-82	1980-81
Crown Forest Estate					
State Forest—000s hectares	3 918	3 903	3 869	3 869	3 713
Timber Reserve—000s hectares	558	559	571	572	584
Plantation Forest Management					
Total area—000s hectares	151	147	143	139	133
New area established—hectares	4 042	3 879	4 414	5 939	6 437
Replanted area—hectares	385	169	416	372	205
Native Forest Management					
Area treated—hectares	7 128	7 595	8 605	8 947	7 839
Nursery Stock Produced					
For Departmental use—000s	4 107	4 400	6 048	7 235	8 000
For Amenity and Forest Plots sales—000s	553	601	1 129	1 059	523
Hazard Reduction (Prescribed) Burning					
Native Forests—000s hectares	154	76	100	106	159
Plantation—000s hectares	10	20	14	12	12
Wildfires					
Number of fires	81	10	270	64	157
Area burnt—000s hectares	19	—	197	35	67
Roads Constructed					
Kilometres	365	253	282	266	324
Timber Cut on Crown Lands					
Native Forests—000s cubic metres	467	456	406	575	593
Plantation—000s cubic metres	324	283	210	303	350
Expenditure					
Forestry Development Fund \$000s	26 136	25 601	24 835	20 480	22 687
Consolidated Revenue Fund \$000s	19 183	16 171	14 914	13 394	11 768
Loan Fund Recreation Facilities—Construction \$000s	496	213	123	183	339
Forestry and Lumbering Fund \$000s	15 335	13 989	12 567	12 180	9 540
Staff					
Wages	1 238	1 112	1 215	1 087	1 211
Salaries	645	645	645	642	631

Left: The Conservator, Mr Jim Smart, welcomes a five-man team from southern China on a visit to Queensland to investigate forest management practices. The Department hosted a nine-day study tour for the team which included visits to Brisbane, Beerburrum, Gympie, Maryborough and Cairns.

Below: Milling of sawlogs at a near North Coast sawmill.



IMPORTANT DEVELOPMENTS

State Forest Management Plan

The policy document "Forest Management in Queensland" was prepared by the Department and endorsed by the State Government early in the year. The document was published in September, 1984, in two parts:

Part I—General Forest Policies and Management Strategies—
Development and Current Status

Part II—Detailed Departmental Forest Management Functions and Aims (Objectives, Policies and Strategies).

Part I is a broadly-based statement, whereas Part II, which stands separately, is more detailed and is intended primarily as a working document for the forest manager.

Following acceptance of these publications as a statement of general Government policy in this area of forest management, a major Department Management Plan Development Conference was held at Gympie and this is detailed elsewhere in the report. The aim of this conference was to develop guidelines for further extension of formal documentation of the planning concept at various levels in the organisation. Preparation of management plans in all Forestry districts in the State is going ahead and good progress is being made within the limits of available staff.

Tree Performance Data Bank

The Department initiated a tree performance monitoring programme which, through computer storage and retrieval techniques, will provide a better basis for an advisory service on tree planting for amenity or rural rehabilitation purposes.

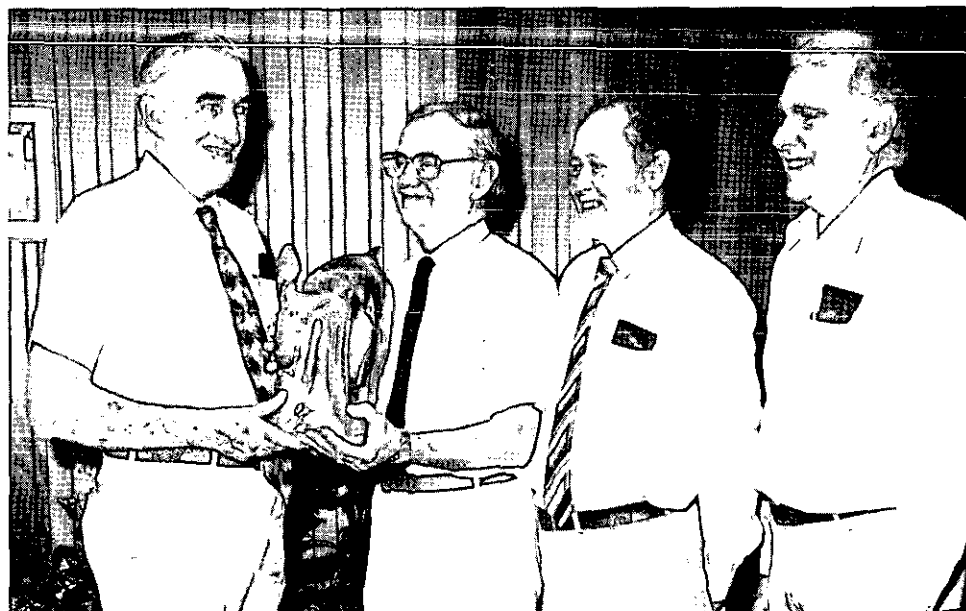
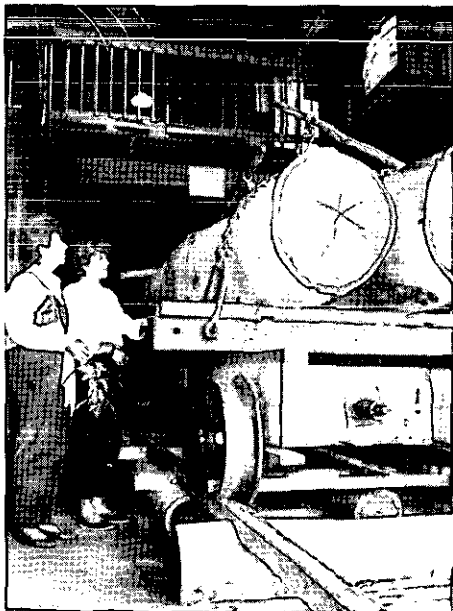
Public interest in tree planting has increased substantially in recent years and many organisations, groups and individuals seek advice on appropriate species and cultural techniques for a wide range of sites and climatic conditions throughout the State. There is particular interest in tree planting for shade, shelter and the restoration of degraded farmlands.

Over the years, the Department itself has carried out many species trial plantings both on public land and private farmland. The information gained from these trials, together with supplementary data obtained from numerous individuals, tree planting groups and organisations throughout the State, will be stored and collated on computer at the Department's Gympie Forest Research Centre.

Summarised information designed to assist tree growers in the selection, care and cultivation of species over a wide range of sites and locations then can be made more readily available by the Department.

Below—a look into the past by Janelle Condon and Cynthia Crawford, Gympie—with some of the exhibits in the "WoodWorks" Museum.

Right: An Australian Development Assistance Bureau team visited the Solomon Islands during the year to assess a proposed reforestation scheme. On their return they presented Conservator, Mr Jim Smart (left) with a wooden carving—a gift from The Solomon Islands Government. Team members from left are—Ken Groves (A.N.U.), Brian Schaumberg (Queensland Department of Forestry) and Dave Cameron (C.S.I.R.O.).



Forestry Act Amendments

The Forestry Act was amended in two major areas during the year.

The two Timber Research and Development Advisory Councils were empowered to manage and control funds collected as additional stumpage by the Department on their behalf. Greater efficiency and flexibility should result for each council and the Department is relieved of the need to perform the accounting function for these funds.

Certain forest management and control powers of the Department also were effectively strengthened by amendments covering certain specialised management functions on State forests for recreational use and scientific research. These amendments recognise the growing importance of State forests for these particular values by providing for the formal gazettal of Feature Protection Areas, Scientific Areas, State Forest Parks and Forest Drives and compilation of management plans for each area.

New High-technology Sawmills

In recent years, the Department has entered into a number of long-term sale agreements for the purchase and processing of large quantities of mature final crop hoop and exotic pine plantation timbers from Beerwah-Beerburum, Yarraman-Benarkin, and Gympie-Maryborough regions.

A number of new high-technology sawmill projects are under way. These include two new mills each with capacities to process more than 100 000 cubic metres a year at Caboolture and near Maryborough. Both mills are expected to be in full production within 12 to 18 months. Commissioning of these mills will provide a major boost to employment in the above regions and they will be important stages in the planned development of a strong, modern industry based on the Department's softwood planting programme.

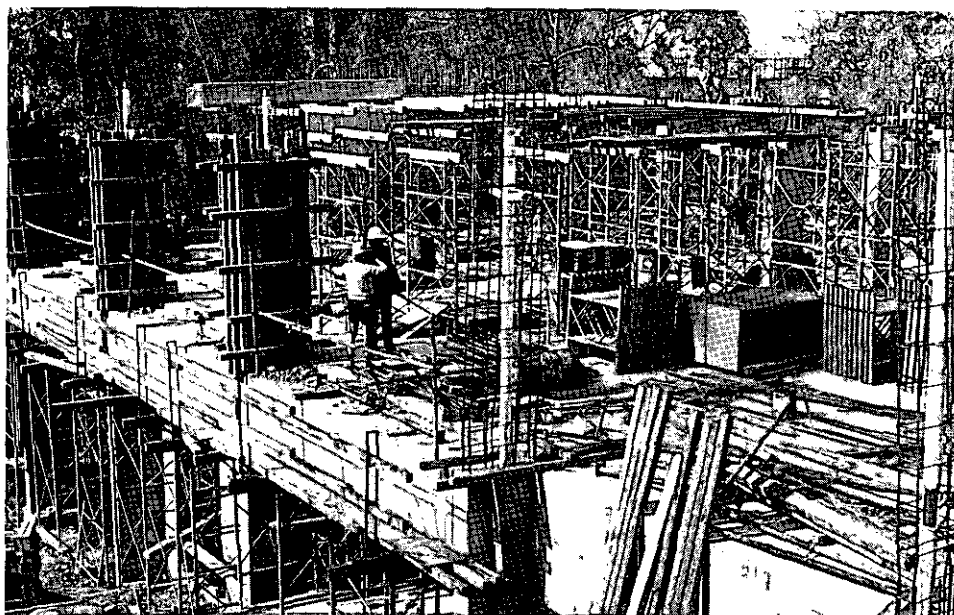
New Accommodation

Work is well under way on the Department's new \$3.4 million five-storey Technical Services building at Indooroopilly.

It will provide technical and administrative offices, research laboratories, lunch/conference rooms, library, cold rooms and stores for a staff of 70 and will consolidate research activities now being carried out at several locations in the metropolitan area.

Left: Work under way on the Department's new \$3.4 million Technical Services Building at Indooroopilly.

Below: Officer-in-charge of the Department's Biology Section, Dr Lyn Bolland (left) discusses plans for the new Technical Services Building with site manager, Andrew Corrigan.



DIVISION OF TECHNICAL SERVICES



Assistant Conservator of Forests, Mr T. Ryan.

Many sections of the community can influence and are influenced by forest management. The complex inter-relationship of forest management and a wide range of social groups in the community has been identified at the State level in the planning document, "Forest Management in Queensland". These influences are summarised in the diagram opposite.

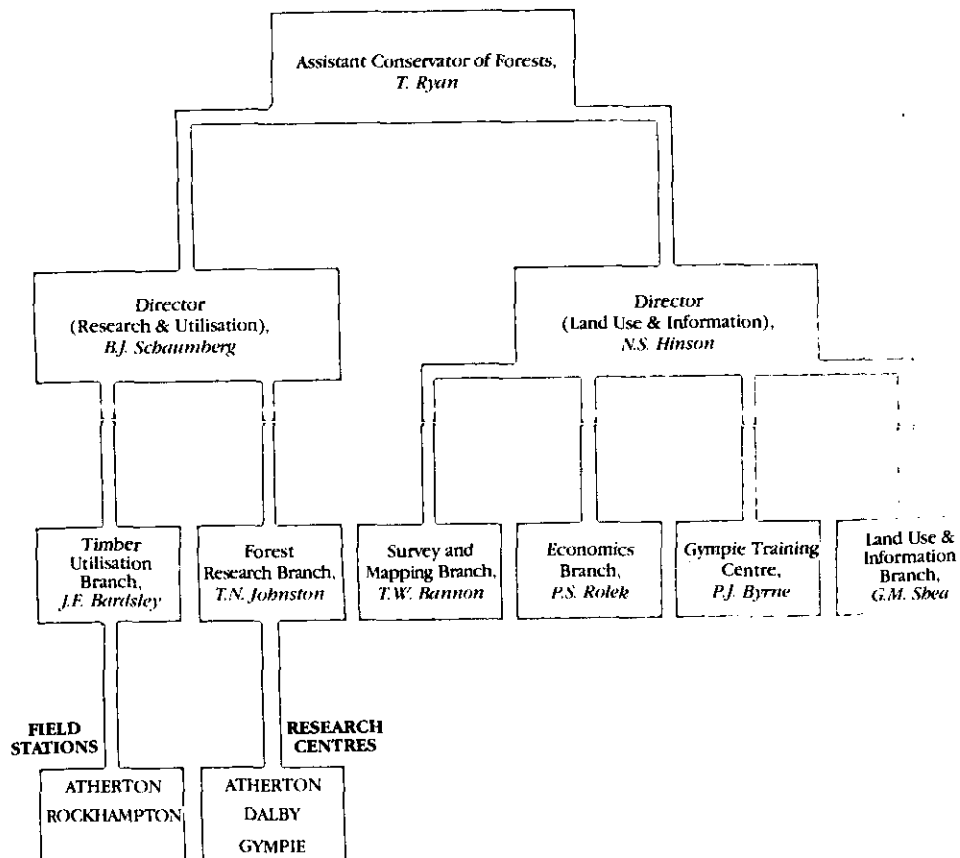
The Department's involvement in forest research, timber utilisation research, utilisation surveys and extension services provides a valuable understanding of the forests' requirements for healthy growth, consumers' needs and trends in timber use. Such an understanding is necessary for the effective interface between the silviculture and utilisation of the forest resource.

The functions of the Division of Technical Services are neatly divided into two organisational categories:

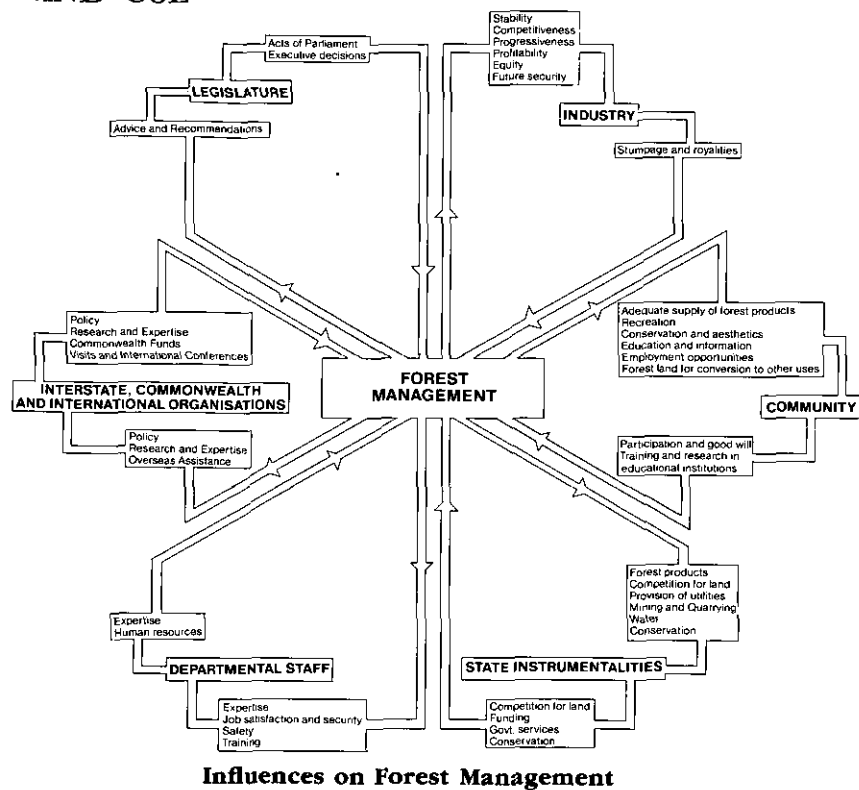
- Research and Utilisation
- Land Use and Information

Both the Research and Timber Utilisation branches function by updating technical knowledge through research applicable to forestry and wood utilisation and by disseminating information to the rest of the Department of Forestry and to the community. With limited resources, the most effective extension role is achieved by closely integrating its knowledge gathering activities with extension. Individual officers frequently perform both functions.

Land Use and Information functions are very diverse and are carried out over four distinct branches.



LAND USE



Management Plan Development Conference

Coinciding with the release of "Forest Management in Queensland", a Management Plan Development Conference was held at the Gympie Training and Conference Centre in October, 1984. The three-day conference, to consider the extension of formal forest management planning within the Department, was attended by 45 senior head office and district delegates. The keynote addresses were given by Mr John Wright, of the Victorian Department of Conservation, Forests and Lands, who gave an overview of the world and Australian forest management planning scene and Dr John Reilly, of the Premier's Department, who covered the State Government perspective on planning.

The management planning framework adopted consists of a four-tiered system involving:

- the State-level forest management plan, "Forest Management in Queensland";
- thematic plans dealing with the management of specific forest types and issues;
- sub-district or State forest group management plans depending on which of these entities is the more convenient unit for management in particular circumstances; and
- action plans which deal with specific on-going activities such as fire protection at the State forest group level.

The preparation of action plans and sub-district/State forest group plans is the responsibility of sub-district staff. The Land Use and Information Branch will play a co-ordinating role in the development of sub-district and State forest group plans and will itself be responsible for the preparation of thematic plans. Upon completion, these plans will become public documents.

Draft stage sub-district and State forest group management plans also will be made available for public examination at selected forest offices and any written comments received on them will be taken into account in the preparation of the final plan.

National Forest Strategy for Australia

A draft national forest strategy prepared by the Standing Committee of the Australian Forestry Council was circulated for public comment in May.

Below: The butt-end of a hoop pine log debarked before snigging.



Its purpose is to indicate important basic principles and goals associated with the management of Australia's forests. It recognises clearly the over-riding responsibility of the States in regard to land management decisions within their own sphere.

In its final published format, the National Forest Strategy will complement "Forest Management in Queensland". Both documents are consistent with the World Conservation Strategy and the National Conservation Strategy for Australia.

Dealing with State Instrumentalities in Land Use Matters

A major concern of the Department is the increasing pressure for use of State forests for non-forest uses by public utilities and by various developmental, quarrying and mining interests. Although often individually small in area, these developments may have markedly adverse environmental impacts on the forest environment. Because of their growing frequency, they can in total, lead to a significant attrition of the forest estate.

In collaboration with the Mines Department, a standard set of conditions applying to most mining operations has been drawn up, and is being applied to new mining leases on State forests. Supplemented as necessary by specific conditions for individual sites, this should help ensure the more orderly development and subsequent rehabilitation of the mined sites.

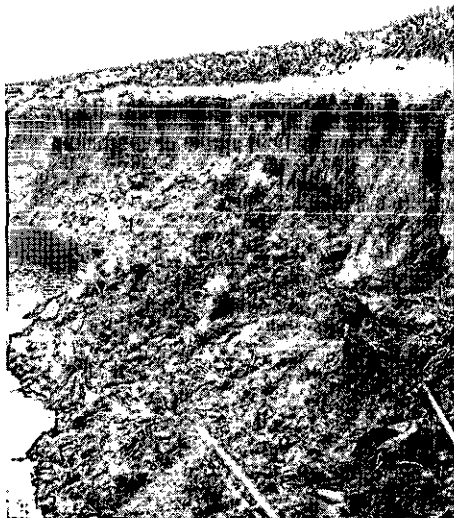
Land Degradation

The Department considers the depletion of arable land through erosion, land slips and salination, largely brought about by overclearing, to be among the most urgent environmental problems facing Queensland. The Department actively promotes the retention of trees on unstable land prone to soil erosion, land slips and salination and the restoration of degraded land through tree regeneration and planting. Moves are in hand with the Land Utilisation Division of the Department of Primary Industries towards the development of a joint trees-on-farms policy. Discussions also are being undertaken with planners of the Local Government Department to seek the possible adoption of some form of agroforestry zoning by local authorities to help deal with land degradation problems.

The Department believes land degradation can and should be dealt with most effectively in Queensland by co-ordinating the activities of the growing number of State instrumentalities, private organisations and individual landholders concerned with this problem.

Below: An example of severe bank erosion in the Babinda District.

Right: A Government officer inspects the results of dry land salting caused by overclearing in the Lockyer Valley. All but the most salt tolerant plants die and serious erosion is caused.



As part of a Government initiative, the Department, together with several State Government departments, will produce a broadcast quality video to highlight the problems of land degradation and to make known services and advice that can be offered by departments to landholders to combat and prevent land degradation.

ECONOMICS

Economics Branch provides specialised services to Department management in the form of applied economic analyses and economic and financial performance assessments of the forestry and forest products industries sector. This sector continued to make a substantial contribution to the Queensland economy in 1984/85, generating sales of around \$900 million and employing about 16 000 people in 800 primary and secondary manufacturing establishments throughout the State.

From an economic perspective, the year was characterised by a continuation of the favourable activity levels witnessed in 1983/84. This was particularly the case in the first half of the year with lower interest rates, the ready availability of finance, plus the First Home Owners Scheme contributing to the high level of dwelling units approved for construction. Generally bouyant trading conditions were experienced by all sectors of the wood-using industries during the year.

A large volume of seasoned framing in final finished sizes from North America also penetrated the local market in response to these favourable trading conditions. This prompted an Industries Assistance Commission Inquiry into the tariff level on "rougner headed" timber imports.

Department forecasts of a widening gap between the available timber supply and forecast demand in the medium to long term, confirm the importance of a continuing plantation programme to supplement declining overall wood production from Crown and private native forests, and to promote regional development objectives.

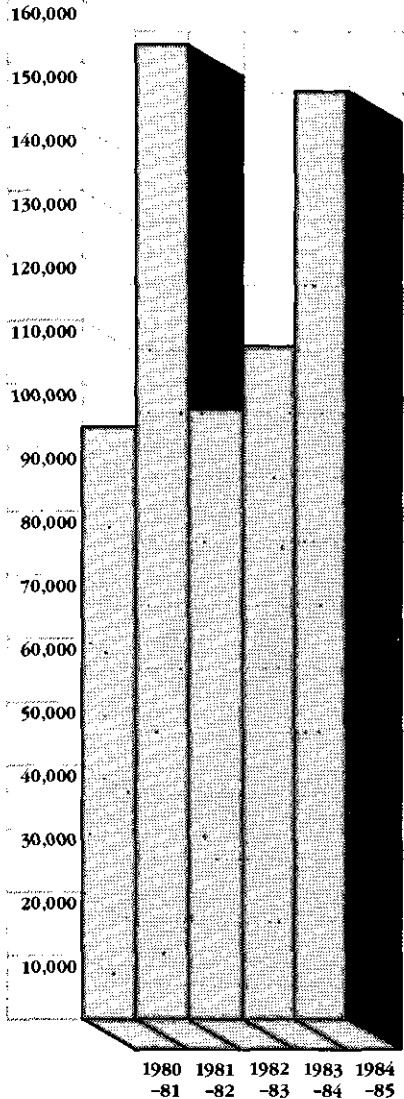
GYMPIE TRAINING CENTRE

The two-year technical training programme for fellowship certificate students is continuing to meet Department needs for field supervisory staff.

Of the 1983 intake, 27 of the 28 students graduated, including two Fijians. This overseas participation indicates the growing involvement the Department has in assisting Asian-Pacific countries in forestry matters.

Contact with these overseas students also has helped broaden the outlook of the Queensland students.

SAWN TIMBER IMPORTS INTO QUEENSLAND FROM OVERSEAS (m³)



(Sources: Timber Supply Review, Forest Products Trade)



Left: Class of '85 at the Gympie Training Centre.

A further 18 students began the course in March, 1985, with 21 weeks' field training. They were selected from 585 applicants and will begin formal tuition at the Training Centre in July, 1985.

The centre's growing reputation as a major conference venue was further enhanced with the hosting of another international forestry workshop in May, 1985. This workshop considered land use planning in watersheds, and was sponsored jointly by the Department of Forestry, the East-West Centre Hawaii, the Food and Agriculture Organisation of the United Nations, and the Australian Development Assistance Bureau. The workshop was attended by representatives from countries throughout the South-east Asia and Pacific regions.

SURVEY AND MAPPING

This year saw the introduction of computer-aided drafting into the Department. New equipment purchased included two graphics terminals, a digitising tablet and colour copier. The equipment is connected to a State Government Computer Centre facility located in Mineral House. This computer also provides plotting facilities.

An extensive programme has begun to train cartographers in computer-aided drafting techniques. The equipment is used for base map preparation, plotting survey traverses, area calculations, plan drawing and other graphics.

Computer-aided drafting promises extensive benefits in the mapping and surveying functions. Its major potential, however, is in the production of accurate, timely information as part of a data base for a forest management information system which the Department is currently investigating.

About \$10 654 worth of Department maps and posters were sold during the year through marketing arrangements with SUNMAP.

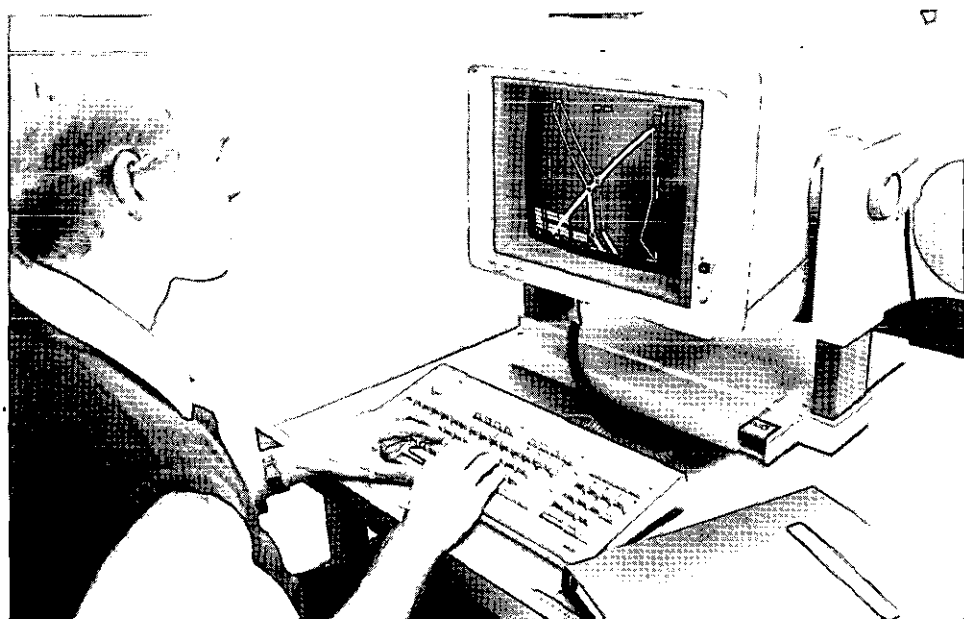
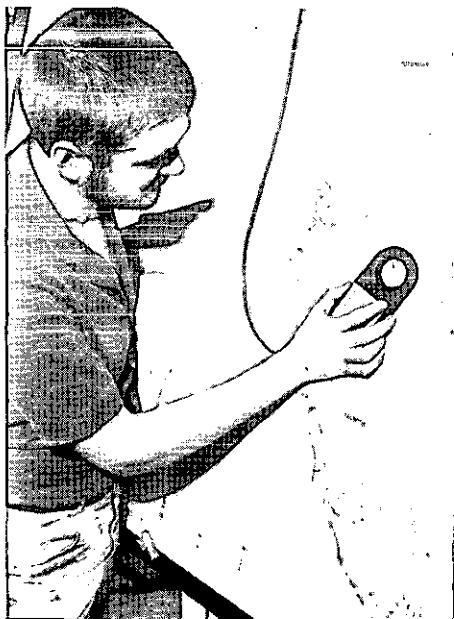
The Department's licensed surveyor completed seven major surveys as well as providing a consultancy service to Department officers.

Additional low-level aerial photography equipment was bought to facilitate the use of "dual camera" photography of forest areas.

Some basic research into the use of satellite imagery to delineate forest types was undertaken. This technique has so far proved unsuccessful. The Department will maintain its interest in satellite imagery, however, particularly as new technology is introduced.

Below: Draftsman Dave Carter with Survey and Mapping Branch's digitiser for transferring map co-ordinates into computer storage.

Right: Computer-aided drafting officer Ian Gorski operates a TEKRONIX work station.



INFORMATION SERVICES

Community Extension

Community interest in forestry activities continues to grow. The demand for information is met by providing a wide range of publications, media releases and answers to personal enquiries.

Presenting factual information and promoting the land use objectives of forestry are the twin aims of the Department's communications campaign.

In this respect, the Annual Report, in addition to its primary purpose as a report to Parliament, is a most important communication document. It is pleasing to note that the Department has received a significant award for its Annual Report from the Australian Institute of Internal Auditors for the second successive year in recognition of the quality of its financial reporting, accountability and overall presentation.

Many general enquiries are received for information for school projects and assignments from students attending primary schools through to university, indicating the need for soundly-based education material.

Project material for the forestry education programme—ForEd—has been successfully trialled in a number of secondary schools. The segment "Wood Products from the Forest Environment" covering the manual arts subject area has received final approval and has been released for use in all secondary schools.

Displays

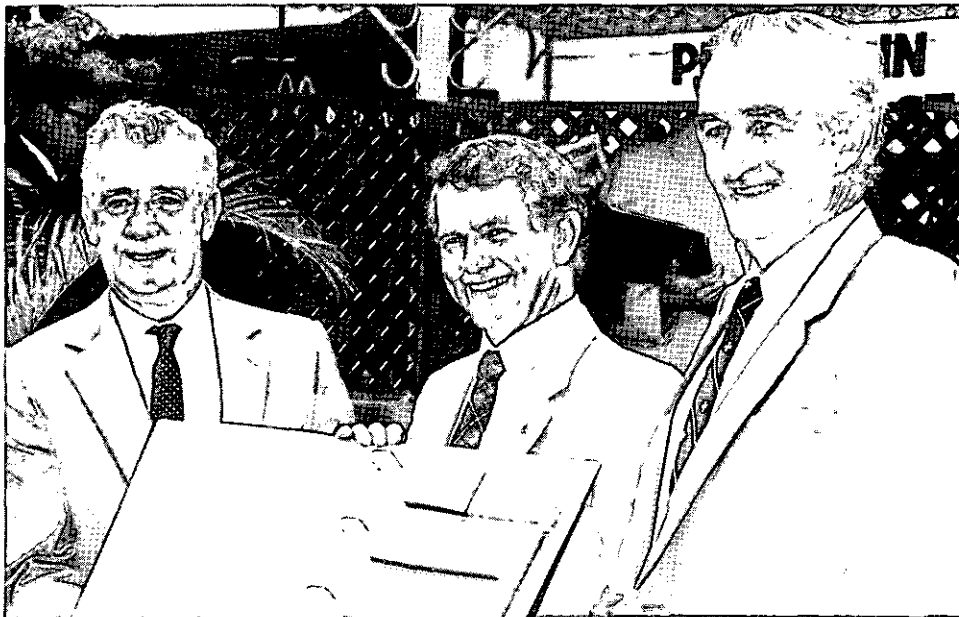
The Department's major public displays are associated with the Brisbane Royal National Association Show and Queensland Timber Week.

The 1984 R.N.A. exhibit promoted "WoodWorks", the Forestry and Timber Museum at Gympie, which opened in March, 1984. The display was complemented by an adjoining exhibit of the Department of Works highlighting the unusual architecture used in construction of the "WoodWorks" building.

Timber Week featured a display dealing with the Department's timber utilisation extension activities and city mall displays promoting the ForEd programme. The mall display culminated on World Forestry Day on March 21, 1985, with the handover by

Left: The Minister for Lands, Forestry and Police, Mr W. H. Glasson hands over a ForEd Folder "Wood Products from the Forest Environment" to Education Minister, Mr L. Powell, watched by the Conservator, Mr J. A. J. Smart.

Below: ForEd Co-ordinator Nancy Williamson (back left) with the graphic design team Rhonda Morahan, Greg Donohue and Beverley Ann Jansen (seated).



the Forestry Minister of a folder on "Wood Products from the Forest Environment" to the Education Minister. The display included the presentation of a playette, "Don't Trash Your Habitat", by children of the Gayndah State School and a woodcrafts and tree-raising exhibit by the Harris Fields State School, assisted by Greening Australia.

The Department also undertook preparation of displays for various country shows during the year. A recent innovation is the introduction of a portable display made up of components from these exhibits for circulation among public libraries.

Library

Demand for forestry library services remained high this year with a total of 16 818 loans of serials and books. Considerable progress was made towards updating the list of staff publications on computer. There are now 548 items listed.

Facilities for direct access to overseas data bases became available during the year and the library ran several computer searches for staff as a result.

The Gympie Branch Library continued to flourish and part-time help was necessary to cope with the increased workload.

Floor plans for the Library in the new Technical Services building under construction at Indooroopilly have been completed.

FOREST RESEARCH

Prescribed Burning in Exotic Conifer Plantations

As a wildfire hazard reduction measure, sections of the large exotic pine plantations of south-east Queensland's coastal lowlands have been regularly burnt on a controlled basis, since 1972. The effects on the growth and nutrition of slash pine (*Pinus elliottii* var *elliottii*) have been monitored since the introduction of this management practice. Over this period, two treatments—no burning and low intensity burning every three years—were applied to two separate slash pine stands which now are 26 years old.

No overall differences in diameter or height growth were detected between treatments.

The current routine practice of burning a particular stand no more than three times during a rotation should not have any adverse effects on growth or nutrition of these forests. A similar study will begin in 1985 to monitor the effects of fire on the other major exotic plantation species, Caribbean pine (*Pinus caribaea* var *bondurensis*).

Re-fertilising of Slash Pine

Lack of phosphorus is the major nutrient factor limiting growth of exotic pine plantations on the sandy soils of Queensland's coastal lowlands. Early research trials demonstrated the need to apply phosphorus-rich fertiliser at the time of plantation establishment and routine practice now involves the application of 60 kilograms of phosphorus per hectare at planting.

Regular monitoring of nutrient levels in the foliage of slash pine plantations is carried out. It has been apparent for some time that many older slash pine stands exhibit foliar phosphorus levels below the recognised critical level of 0.075 per cent.

A series of three experiments were established in 1979 to investigate the response to re-fertilising of 13-year-old slash pine stands on a range of sites. Foliar phosphorus values for the control plots at the establishment of the trials were at or below critical level. Four years after re-fertilising, there was a substantial response resulting in an overall improvement in volume growth of around 20 per cent. There was no response to elements apart from phosphorus. Other trials have shown that this re-fertilising response can persist for more than 11 years.

These preliminary findings have prompted the routine initiation of a large scale re-fertilising programme aimed at improving the overall productivity of the plantations.

Aerial fertilising at Beerburrum.



Australian Hardwoods for Fuelwood and Agroforestry

Fuelwood provides the major source of energy for the majority of people in developing countries. About one-third of the world's population is affected by shortages of this essential commodity, while more than 100 million people are unable to obtain sufficient fuelwood to provide even minimal energy needs.

Because of its location, climate and flora, Australia has a great potential to contribute towards solving this problem through use of its native tree species, but available information on many of these is limited.

The Australian Centre of International Agricultural Research (ACIAR) has commissioned the Department, in collaboration with a number of Divisions of the CSIRO, to undertake studies of some lesser known but potentially valuable Australian species for this purpose.

A total of 172 batches of plants comprising 90 species with one to four provenances of each, have been raised and planted out since 1984 using seed collected from Queensland, the Northern Territory and Western Australia by the CSIRO Division of Forest Research. Major plantings were made at two sites in south-east Queensland while minor plantings were carried out at eight other sites in Queensland, the Northern Territory and Western Australia in 1985.

Information is being collated on nursery requirements for successfully raising seedlings and on the growth rates and habits of the test plants in the field. Later studies will include assessments of the value of the wood for fuel, of the foliage for fodder and of the ability of the trees to regrow after cutting.

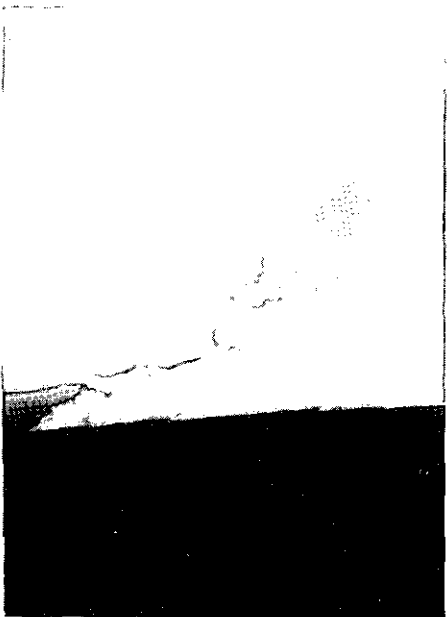
A related project being carried out in co-operation with the CSIRO Division of Soils is a study of the growth of various *Casuarina* species and their nitrogen-fixing capacity when infected with various strains of *Frankia*, a micro-organism that forms nitrogen-fixing nodules on *Casuarina* roots.

Parallel trials also will be sponsored by ACIAR in a number of African and Asian countries. It is expected that the results of the Australian and overseas trials will enable a start to be made on community reforestation programmes in a number of developing countries within a few years, using some of these previously, little-known Australian species.

The knowledge gained in this work is of potential benefit also to reforestation of denuded and degraded lands within Australia.

Left: Prescribed burn in an exotic conifer plantation.

Below: Winds blow smoke away from urban areas during a prescribed burn.



Tree Decline in Rural Areas

Over the past few years, detailed studies have been conducted on the death and decline of river she-oak along many streams in the Mary River catchment of south-east Queensland. Landholders are concerned at the loss of shelter for stock, blockage of waterways by fallen dead trees and resultant streambank erosion.

Repeated defoliation of the trees by a leaf-eating chrysomelid beetle is a major contributing factor in the decline. Surveys and sampling at 220 sites in the catchment, however, indicate the trees are being predisposed to insect attack because of increasing streamwater salinity. Paired sub-catchment studies in the Widgee Creek and Amamoor Creek systems have demonstrated a direct link between the degree of tree clearing and the levels of streamwater salinity and dieback severity. The increased areas of grassland, crops and improved pasture available for the larval stages of the insect as a result of clearing for development also favours population increase of adult tree-feeding beetles.

The Mary River catchment covers about 20 000 km², and has been subject to intensive agricultural, pastoral and forestry activities for more than a century. More than 50 per cent of its forests and woodlands have been severely modified since settlement. If tree clearing is the pivotal factor in the decline, as these studies indicate, then efforts towards re-establishing tree cover in critical areas will be well directed and offer hope of a solution.

Conondale Range Fauna Study

The Conondale Range Fauna Study, begun in 1982, has continued to be the major area of zoological research.

The planned experimental logging of the treatment catchment was delayed from 1984 to late 1985 in the hope that the "missing" gastric brooding frog could be located and included in the study. The frog has not been located, however, and logging will proceed in October, 1985. Fauna impact assessment will rely on data gathered on the giant spiny lobster and the rainforest crayfish.

Since the studies have shown that the Conondales may support one of the largest populations of marbled frogmouth in Australia, particular efforts have been put into studying its ecology and the effects of logging on this species.

Attention was drawn last year to the discovery of the rare eastern bristlebird in the Conondale Range area. Despite a wildfire in August, 1984, which burnt out the Conondale habitat of the bird, the small population remains intact and has successfully bred post-fire. Monitoring of this population is continuing.

Example of dieback in a small forest pocket in an agricultural area.



TIMBER UTILISATION RESEARCH

Wood Chemistry and Preservation

Research into the design and implementation of improved analytical methods for timber preservatives has continued. A fast, reliable method for analysing anti-sapstain chemicals using high-performance, liquid chromatography has been developed for commercial application in Queensland. The method has attracted considerable interest internationally and already end users in the USA and New Zealand have sought assistance in applying the new technique.

A pilot scale vacuum/pressure impregnation plant has been installed in the Salisbury Laboratory to enable commercial type treatment trials to be undertaken. Current research using the plant involves copper chrome arsenate (C.C.A.) treatment of plantation-grown hoop pine to secure uniformly adequate chemical loadings.

Current measures to control sapstain in plantation-grown pine, use either pentachlorophenate (PCP) or Captafol. Both of these chemicals can be hazardous to the health of plant operators unless strict precautions are observed, and Captafol recently has been withdrawn in Australia as an agricultural fungicide. Several candidate chemicals were included in a study which successfully identified more acceptable alternatives.

Protective timber finishes represent a large and important aspect of satisfactory timber use in exterior situations. In field exposure trials, several proprietary finishes have been tested on timber panels of brushbox (*Lophostemon confertus*), cypress pine (*Callitris columellaris*) and western red cedar (*Thuja plicata*). Some of the finishes are performing well and promise to be very successful in protecting timber used in external situations.

Timber Seasoning

A large trial on high temperature drying of plantation-grown hoop pine was completed on behalf of industry in the kilns of one of the member firms. The purpose of the trial was to provide extra data for industry in their current planning development work involving utilisation of final crop stems.

Considerable general information already is available on timber drying at medium (60—100°) and high (100—130°) temperatures.

Further work is proceeding on certain aspects namely:

- fine tuning of drying schedules for particular species
- possible alternative drying methods that utilise even higher temperatures or higher humidities coupled with higher temperatures, and
- improving methods of monitoring the moisture content of timber during drying.

Wood Quality Assessments

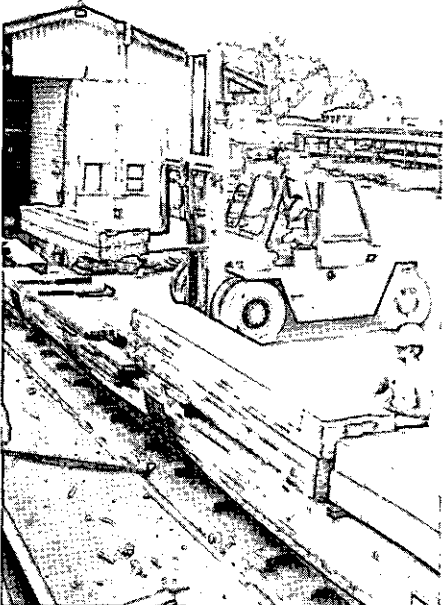
There has been a shift in emphasis from Caribbean pine to hoop pine in the wood property research programme.

In addition, projects have been initiated to examine:

- the effect of current silvicultural regimes on wood quality
- the rate and extent of heartwood development in coniferous plantations, and
- techniques for the assessment of compression wood.

Left: Atherton senior timber technician, Graham Hughes (right) and Rockhampton senior technician Robert Bell (second from right) learn about new research developments and initiatives at the Timber Utilisation Branch in Brisbane. Principal Utilisation Officer Dave Gough (left) and Branch manager Jim Bardsley discuss a flooring material problem with the visitors.

Below: Timber being placed in position to enter a vacuum-pressure impregnation cylinder, for preservation treatment.



Utilisation

A timber cladding trial was installed in 1981/82 in co-operation with industry, to test the suitability of plantation grown pine as an exterior cladding material. The application of preservative treatment and a range of clear and semi-opaque finishes was investigated.

An interim report on the trial shows that:

- A maintenance programme using water repellent paint is of benefit.
- Copper chrome arsenate is a more effective treatment against mould growth than copper naphthenate. It also reduces movement in the timber to a greater extent.
- Current grading rules are adequate but restrictions are required on the amount of weather-exposed heartwood allowed in non-durable species.

TIMBER UTILISATION EXTENSION

Strengthened relationships between the Timber Utilisation Branch and the timber and building industries have continued to develop and a branch member attends industry meetings by invitation to discuss research development and technical problems.

Large volumes of North American softwood framing reached the local market during the year. Unfortunately, some of it was well below acceptable grade limits. Discussion with importers appears to have resolved the situation. As an interim measure, approval has been given to grade this material to an existing Australian standard, and guidelines have been established for grade branding of all structural sizes.

Presentation of a course to architects and engineers employed by Government, on "Specifying the Use of Timber" was initiated during the year.

The purpose of the course was to re-state some of the basic information in the light of new developments in processing, technology and the timber resource. Course development and preparation of a 60-page booklet entitled "Timber Specifiers' Notes" was carried out in conjunction with TRADAC. The booklet will be suitable as a text for architecture, engineering and building students.

Two courses for treatment plant operators were conducted by Department officers in collaboration with the Queensland Timber Industry Training Council and a similar course on air seasoning and kiln seasoning is being prepared.

The demand for timber and samples from schools, woodworking firms and from private individuals continues to rise. About 5 000 samples were despatched this year. Sets of 24 samples are provided free to schools. Sets of samples are now available for sale at WoodWorks Museum, Gympie.

An exhibit dealing with the theme "Understanding Timber and Using it Correctly" was prepared for the Forest Industries Fair/Telegraph Home Show in March. The exhibit was well received and stimulated many enquiries on timber use.

About 7 250 extension enquiries were received and of these, Biology section received 3 100. Most were from consumers concerned about insect and decay problems occurring to timber and trees.

Industry Surveys

Housing surveys are continuing with the aim of determining qualitative aspects of timber use in housing throughout Queensland.

A survey on the production and use in Queensland of treated pine (sawn and round) has been completed. A report will be published in "Timber Trends"—a new series publication to advise industry of market trends.

A survey of timber use in fencing in Queensland is currently in progress.

Timber Users' Protection Act (TUPA)

The Timber Users' Protection Act (1949/72) is designed to ensure that timber preservation and timber seasoning practices in the State are of a high standard.

The Timber Utilisation Branch offers advice on the treatment of exterior timbers and the protection of trees as illustrated here.



Forty-six official complaints were lodged with the Department under the Act during the year. All have been rectified successfully without the need for legal action. This is a slight improvement over the level of complaints for the previous year. It is notable that only two of the cases involved timber produced in Queensland. This improved result is due to a number of factors:

- More imported and locally-produced coniferous timber, not susceptible to *Lycyus*, is reaching the market.
- More treatment plants are being installed and the treatment quality testing programme begun in 1983 is proving its value.
- There is a noted improvement in product standard.
- Lectures, meetings and a higher level of contact with builders are all helping to publicise the Act and educate the users of timber in its requirements.

West Indian Drywood Termite Eradication Project

The West Indian drywood termite eradication project continued with another 322 samples relating specifically to the project, being received and processed. Although substantially fewer than last year, this figure is similar to the 1982/83 total. Advertising campaigns are run during alternate years and the last one was in 1983/84. About 45 per cent of this year's samples contained evidence of drywood termites, mostly the native *Cryptotermes primus*.

Evidence of the West Indian drywood termite was found in only eight building and 16 furniture samples. Subsequently, five buildings were fumigated. Consistent with most of the building infestations located in recent years, there was no evidence of spread to adjacent houses.

A film on the West Indian drywood termite in Queensland and the eradication programme has been completed. The film is titled "A Stitch in Time", and is suitable for use in schools and in general-interest television programmes.

Timber Processing

A large study involving the sawing of 473 trees was undertaken at Yeppoon to provide information on the processing and sawn timber properties of Caribbean pine.

The data is currently being processed and will be used to structure pricing levels to reflect the value of logs produced in the Department's Caribbean pine plantations. Information on graded recovery will be of use to industry in planning their future conversion and marketing strategies.

Left: Timber and plant quarantine are among the many important advisory functions of the Department's Biology Section at Indooroopilly. Here senior entomologists Ross Wylie (left) and Brenton Peters inspect timber articles for insect infestation.

Below: Timber articles being inspected for insect infestation.



DIVISION OF FOREST MANAGEMENT



The Deputy Conservator, Mr J. J. Kelly.

Forest Management is concerned with the care and protection of native and plantation forests and the marketing of forest products from State forests and other Crown lands.

Queensland's native forests, though rich and varied in species composition, are limited in extent and unable to provide all our timber needs on a sustainable basis. Establishment of more highly productive plantations of native and exotic softwood timber species to bridge the supply gap has been a high priority management objective in this State for more than 50 years.

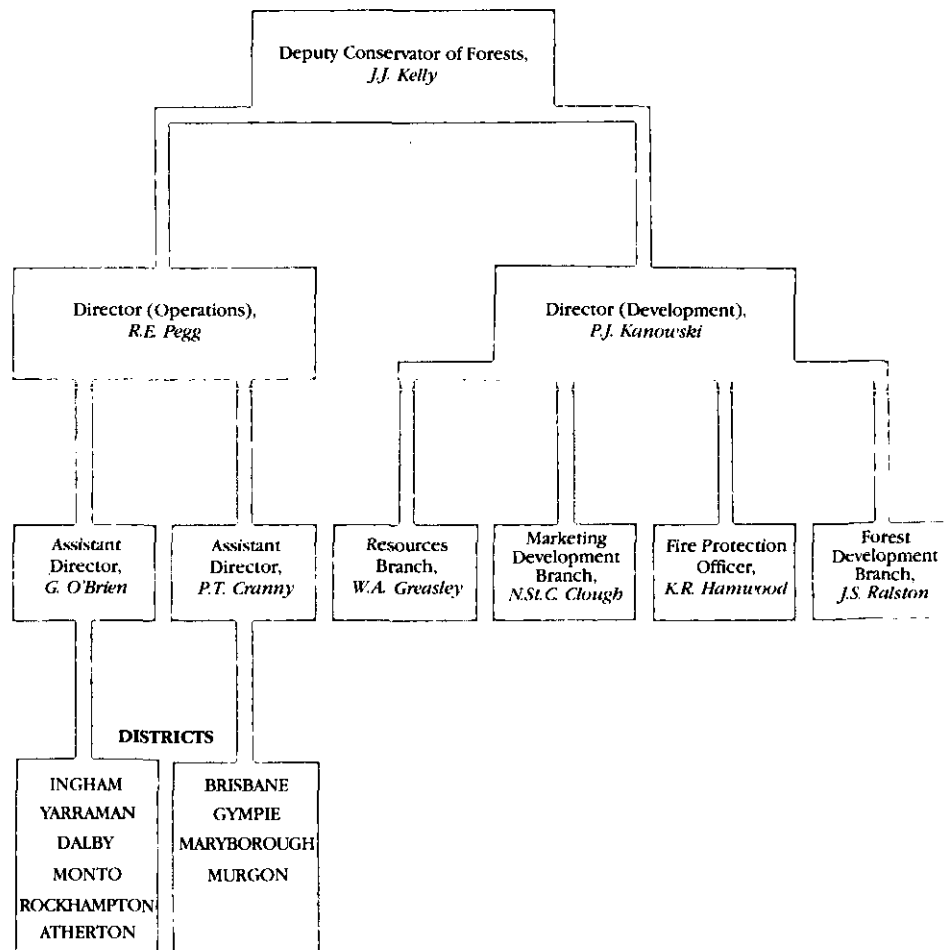
Thanks to the foresight of pioneer administrators, the Department now has begun the harvest of its older, mature plantations and has embarked on the production of a second crop on the same sites.

Until 1983 forest management functions were separated on the basis of production and marketing. Their unification in the new framework recognises that sound forest practice often depends on the closer integration of these two aspects.

While this was always evident in traditional forest practices such as treemarking of native forest and plantation thinning which perform both a marketing and silvicultural function, it is now obvious that forest systems need to minimise marketing costs as well as maximise the value of production.

Their new dichotomy separates the works programmes (operations) from (development) functions of forest management which take the form of plant purchase and maintenance, problem solving and the orderly introduction of new practices and techniques.

The new structure has not only established more clearly the lines of responsibility between the Districts and Head Office; it will ensure that current works in both production and marketing are carried out to a uniformly high standard and that both aspects will progress at a more equivalent rate.



FOREST OPERATIONS

Plantation Establishment

During the year 4 411 hectares of softwood plantation were established consisting of 3 625 hectares of exotic pine and 400 hectares of hoop pine. As well, 251 hectares of exotic pine and 135 hectares of hoop pine were re-established following harvesting of final crop material from the first rotation.

Past experience of plantation fires has highlighted the need to avoid, if possible, having large consolidated areas of exotic pines younger than the initial prescribed burning age of about eight years. Thus, plantation design on a large area of recently acquired land at Toolara State Forest involves the initial planting of strips to break the area into smaller units. These units will not be planted until the adjoining buffer strips can be prescribed burnt to reduce the fire hazard.

Plantation establishment at Cardwell and Abergowrie in North Queensland is largely completed and planting has started at Lannercost, near Ingham. Owing to the necessity to provide adequate buffer strip protection for streams in this high rainfall area, and to limit clearing on steep slopes, the final designed areas available for planting on the North Queensland coastal lowlands are significantly below the initial provisional estimates. The total net area available from land currently held as State forest, will fall well short of the estimated 18 000 hectares required to meet future local sawlog production requirements for this region of the State.

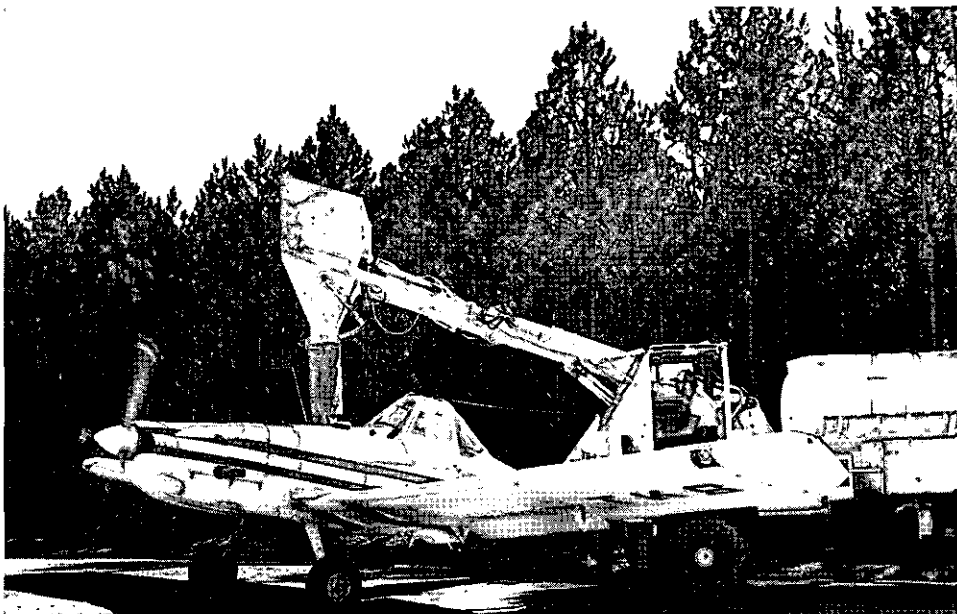
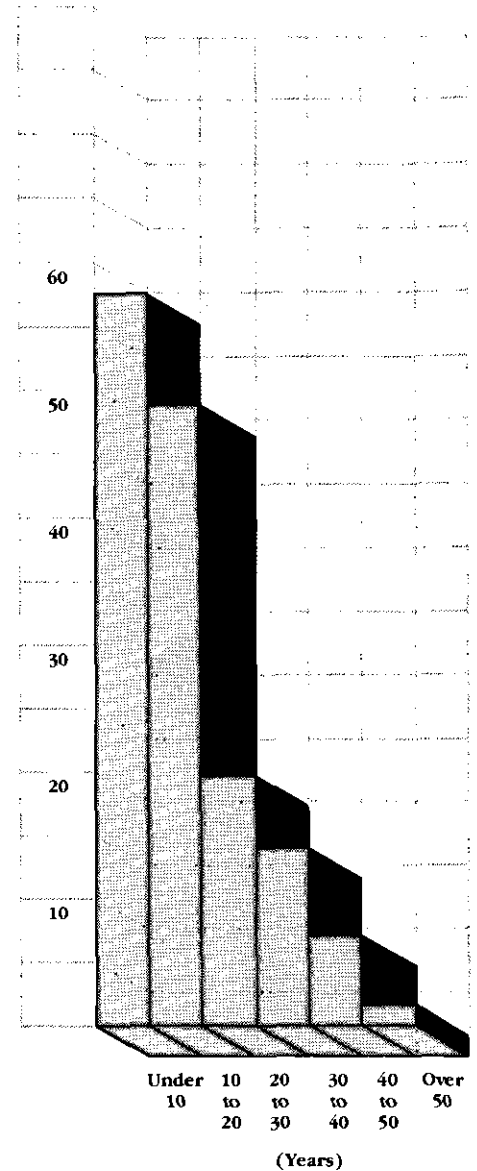
Fertilising

All exotic pine plantations are fertilised with 60 kilograms of elemental phosphorus per hectare at establishment time. To date, routine practice has been to re-fertilise at about 10 years of age only if foliar sampling indicated critically low phosphorus levels. Recent research work, however, has shown that a significant general response to re-fertilising can be obtained at about the time of first thinning.

During 1984/85, areas were selected for re-fertilising on a priority basis using pruning and thinning histories and age as criteria. A programme of aerial re-fertilising applied 40 kilograms per hectare of elemental phosphorus to the areas selected.

This involved the re-fertilising of 7 459 hectares at Beerburrum, Toolara and Tuan for a cost of \$585 411.

NET AREA OF EFFECTIVE PLANTATION
BY AGE CLASS ('000 hectares)



Loading a plane for aerial fertilising over Beerburrum.

Native Forest Treatment

For many native forests, closely supervised selection logging is the only form of treatment economically possible to upgrade productivity.

Follow-up silvicultural treatment, desirable as it may be, is severely limited by slow growth and availability of funds.

About 5 735 hectares of cypress pine forest and 1 393 hectares of hardwood forest were silviculturally treated. This is about a six per cent decline from last year and reflects the generally difficult economic conditions.

Timber Marketing

The volume of timber harvested from Crown and private land during 1984/85 is provided in the Appendices. The total Crown cut of milling timber and pulpwood was 790 862 cubic metres, an increase of seven per cent on the previous year's cut.

Log timber receipts amounted to \$15 604 283 for the year which represents an increase of 21 per cent over 1983/84. Final crop logging in plantations of both hoop and exotic pine accounts for \$2 717 242 of these receipts.

The number of mills entitled to receive native hoop pine under haulage contracts, was reduced after a review of quotas based on mill performances. Only 24 firms now have quotas. The total yearly quota of about 27 000 cubic metres was not varied. Volume processed for this year was 11 417 cubic metres with a total value of \$361 093.

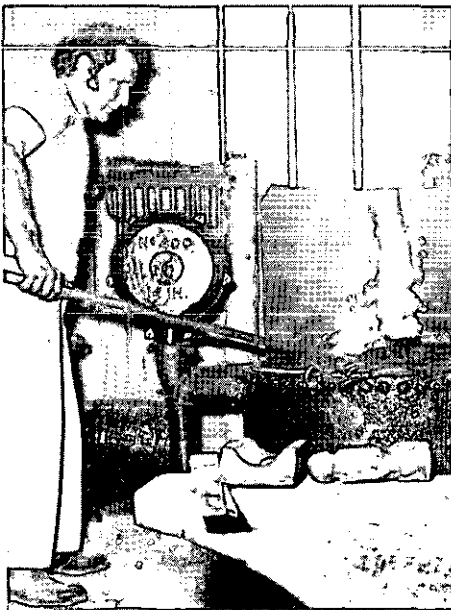
Sawmill Licensing

Rationalisation within the timber industry is an ongoing process and results are evident in a further decline in actual numbers of processing plants.

While numbers have declined, this has been compensated by a degree of modernisation of plant. This is particularly evident in the plantation timber sector, where high-technology, high-production sawmills are planned for Caboolture and Maryborough.

Currently there are 259 general purpose, 56 restricted licence, one sleeper residue and 28 portable mills licensed.

Blacksmith Jim Walsh heats up a piece of iron in the forge at WoodWorks Museum, Gympie.



Seed Collection and Plant Sales

This year's Caribbean pine seed collection yielded 707 kilograms of genetically-improved seed. New equipment acquired over the past three years has resulted in major improvements to the seed-processing activities. Extracting and clearing equipment is now set up and operating at Beerwah where seed of a very high quality can be produced. Overseas demand for this seed continues to rise. Seed sales for this year returned \$187 400 of which \$166 400 were from overseas orders mainly for Caribbean pine.

A collection of *Acacia mangium* yielding 63.4 kilograms, was still not sufficient to meet the demand from overseas. An elevating platform has been bought to help with future collections.

Nurseries

There is increasing interest in the Department's forest plot and windbreak schemes, which are designed to encourage the planting of trees on rural properties. Five hundred and sixty-four plantings were approved through the schemes this year. Most interest was in the Brisbane and Atherton Districts, where a considerable effort is put into extension work and promotion of land rehabilitation. Increasing public awareness of the value of trees on farms has meant increasing demands on Department staff resources. This demand is expected to continue to increase significantly, eventually requiring the allocation of extra staff and funds.

WoodWorks, the Forestry and Timber Museum

This museum, located at the Gympie Forestry Complex, is jointly managed by the Department and the Queensland Museum. The museum was opened during March 1984 and 12 000 people have visited WoodWorks during the first 15 months of operation. Numerous school and other organised groups have visited as well as many tourists.

A blacksmith shop has been added to the museum since its opening and the next major project, now under way, is the construction of a steam-driven sawmill.

The museum is fast becoming a popular tourist attraction and also an important information and educational centre.

FIRE OCCURRENCE

A relatively mild fire season was recorded for most centres throughout the State with the exception of the western cypress areas which remained very dry through summer. A total of 81 fires were recorded as affecting State forests and suppression of these cost \$105 283.

Two major fires occurred during the year. At Beerburrum, arson is suspected in separate fires which burnt 230 hectares of six- and seven-year-old exotic pine plantation. Only about 30 hectares of plantation trees were completely destroyed with suppression costs amounting to \$7 000. The value of the resource lost has been estimated at \$120 000.

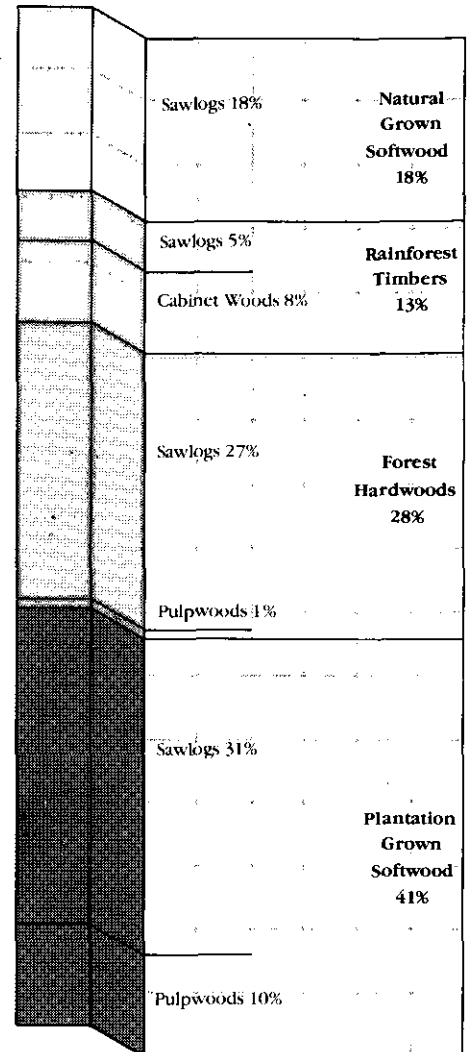
In the Inglewood sub-district, a fire burnt over 9 700 hectares of State forest and adjoining Crown land. Two hundred and seventeen hectares of treated cypress pine was destroyed and the total resource lost is estimated at 2 500 cubic metres. Suppression cost a total of \$40 000.

Hazard Reduction Burning

Good conditions allowed the protective winter burning of 5 853 hectares of exotic pine plantations by aerial ignition and 5 070 hectares by hand lighting. In routine practice, aerial ignition is confined to areas previously burnt. Trial work on aerial ignition of areas to be burnt for the first time, however, is continuing.

Wet winter conditions delayed the protective burning of native forests. About 95 000 hectares were burnt by aerial ignition and about 1 500 hectares by hand lighting.

CROWN TIMBER REMOVALS 1984-85
TOTAL REMOVALS 790,862 m



Toolara (now Gympie) sub-district officers demonstrate the new fire-fighting equipment.

Fire School

A fire school attended by 32 overseers, rangers and foresters was held at Gympie Training Centre during the year. The course covered both lectures and field work in aspects such as fire legislation, fire behaviour and fire weather, forest fire control, procedures and organisation, equipment, fire protection plans, prescribed burning and research.

Communications

One hundred and sixteen new mobile radios were purchased to convert Brisbane and Rockhampton Districts to repeater operations as the first phase of a five-year, State-wide re-equipment plan starting in 1985/86.

Upgrading and maintenance of simplex installations continued throughout the year with new base equipment installed at Danbulla, Gympie, Bundaberg, Benarkin, Passchendaele, Imbil and Woocoo.

Site investigations are continuing for new bases at Mt Bellenden Kerr, Mackay, Rockhampton, Brooyar, Kenilworth and Fraser Island.

Forest Recreation

The number of visitors to State forests has increased, as it has each year for several years. The use of State Forest Parks for the year is estimated at 950 000 visitor days, an increase of 10 per cent over 1983/84.

Funds available have permitted only minor upgrading of facilities, and some increase in the visitor capacity at certain State Forest Parks. New toilet blocks are being built at Emu Creek near Benarkin and at Cedar Grove near Imbil. Commonwealth Employment Programme funds have been used to provide walking trails and lookouts at State Forest Parks in the Warwick, Brisbane, Imbil, Ingham and Atherton areas. These funds provided short-term employment for 23 people for periods of from 12 to 17 weeks at a cost of \$142 000. In general, however, the Department was unable to allocate sufficient funds to provide a level of interpretative and patrol activity which adequately met increasing visitor needs.

Recent legislative actions will have a significant impact on the management of State forests for public recreation. These include an amendment to the Forestry Act to provide for better control of the activities of an unruly minority of visitors who abuse facilities provided. The Fraser Island Public Access Bill provides specifically for regulation of access to that island, and will make possible more effective control of environmental damage, including littering.

Forest Technician Tim Frodsham sprays weeds at the base of a young hoop pine tree.



FOREST DEVELOPMENT

Site Preparation

Cultivation, including mounding on some sites, is necessary for the satisfactory establishment of exotic pines, particularly Honduras caribbean pine planted open-root. Constraints on site preparation are necessary to restrict soil loss to an acceptable level, particularly as readily erodible soils are commonly involved. Guidelines have been prepared for first rotation establishment. These define the limits to permissible types of cultivation in terms of site factors, and prescribe requirements for structures and designs for the diversion of run-off into natural waterways. The guidelines are based on established soil conservation principles.

Weed Control

A weed control manual covering all field operations was prepared and introduced into service.

A prescription involving the use of sown cover crop and the placement of residual herbicide around each tree is now being applied to all new plantings of hoop pine. This prescription has many advantages and has been introduced progressively over recent years.

On re-purchased grazing lands, effective control of pasture species in the immediate vicinity of the planted seedling in the first few months after planting is necessary for successful establishment of exotic pines. About 1 000 hectares of improved pasture land were successfully converted to exotic pine plantation this year by development of a weed control programme using combinations of knockdown and residual herbicides.

Major Construction

It was necessary to replace a three-span timber bridge on the Black Mountain Road near Kuranda to provide continuing access to plantation and native forest. A replacement bridge with a single pre-stressed concrete span of 24 metres supported on piles poured in situ, was designed and constructed by Department staff. Construction time was 10 weeks.

Approaches to the new bridge built last year over the Barron River at Tinaroo were built using a fabric reinforced earth technique. This crossing of the Barron River provides access to plantations, native timber stands and recreation areas adjacent to Tinaroo Dam.

A State Forest Headquarters building with provision for offices, garage, equipment and materials storage and a fire tank loading gantry, was built in Ingham adjacent to the exotic pine nursery. This building will serve as a base for plantation works at Abergowrie and Lannercost.

At Toolara Forest Station, the office was extended and work started on a building for the storage of fire control equipment and herbicide. Design of other buildings at Toolara is proceeding.

Plant and Equipment

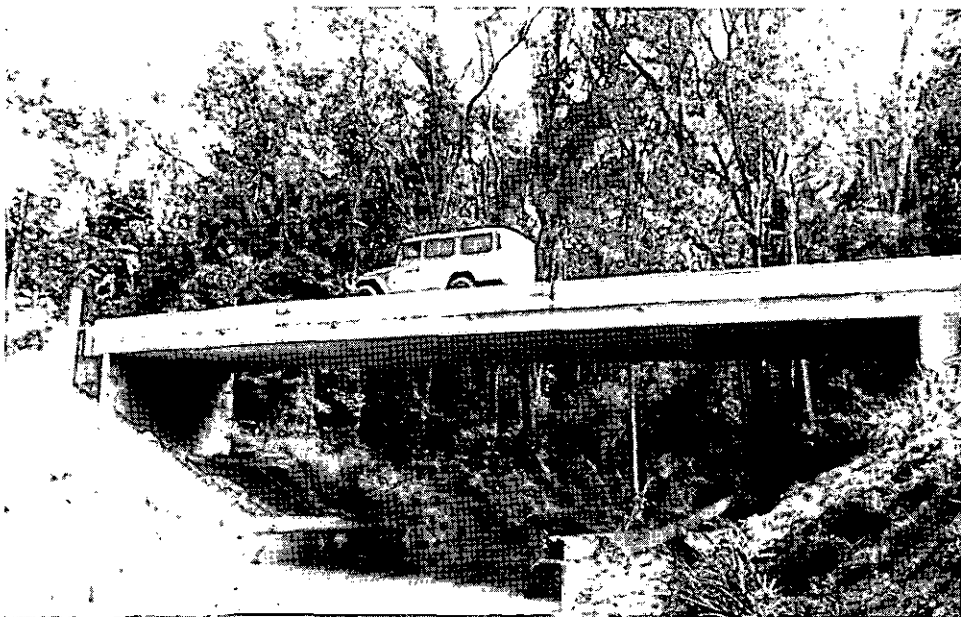
One M20 class dozer and one M10 class special application crawler tractor were bought. The latter will be used for site preparation work replacing a four-wheel drive, rubber-tyred tractor.

A fire tanker, based on a four-wheel drive, seven tonne truck chassis and designed specifically for Queensland conditions by officers of the Department was built at Gympie Workshop, tested under service, and is stationed at Toolara. Provision of more tankers to the same design is proposed soon. All existing tankers now have been modified by installing monitors and electric hose reels.

Thirty-seven tanks, 52 pumps and 49 hose reels were supplied to the districts to update slip-on equipment.

Left: Replacement bridge on Black Mountain Road to provide continuing access to plantation and native forests.

Below: Forest Ranger Mick Devery inspects epiphytes seized during an investigation into an alleged breach of the Forestry Act.



A new two-year contract has been issued for the supply of all classes of fire fighting pumps.

Two replacement motor graders were bought. A fleet of 20 graders is used for the construction and maintenance of the extensive network of forest roads throughout the State.

Thirty-five replacement trucks of various sizes, together with 121 light motor vehicles, were purchased during the year.

FOREST RESOURCES

Plantations

Calculations were carried out to provide updated information on log availability from softwood plantations in the Mary Valley, Pomona, Cathu, Byfield, Pechey, Passchendaele, Murgon, Monto, Beerburum, Cardwell, Yarraman and the Tuan-Toolara-Wongi areas. As a result of this, some additional log volumes will be available to industry from the Pechey, Passchendaele and Cardwell plantations. The Byfield plantation is being investigated for the short-term availability of small log supplies additional to local requirements.

Further data examination was undertaken on behalf of the company undertaking a feasibility study into the establishment of a pulp and paper (newsprint) mill based on the Tuan-Toolara-Wongi plantation resource.

Improved field assessment inventory procedures were introduced to most centres during the year. These improvements are backed by computer software capable of easier accessing of stored data and improved reporting to management.

Native Forests

Further field inventory work involving the rainforest resource in North Queensland was undertaken during the year. Yield recalculation is in progress, using aggregate data from the 1980, 1983 and 1984 field samples in preparation for the sawmill allocation review due on October 1, 1986.

The present phase of investigation work into timber stands in the Springsure-Rolleston area of Central Queensland has been completed. Reports are being prepared identifying possible areas for State Forest reservation.

Reviews of sawmill allocations for cypress pine and Western Queensland hardwood have been completed, in readiness for the new five-year allocation period beginning October 1, 1985.

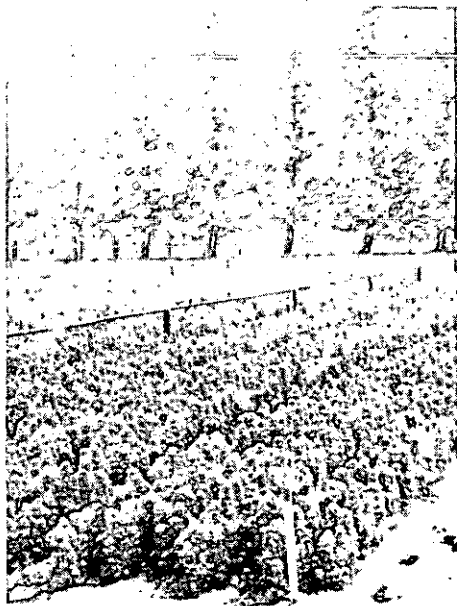
The cypress pine growth modelling project has reached the final stage of exhaustive testing for reliability. It is intended that once proven, the model will be applied to yield prediction methods for cypress pine areas.

Native Forest Valuation (Tenure Conversion)

The programme of timber valuation on Crown leasehold lands under application for conversion of tenure to freehold, continued. New applications for the year numbered 120. The position with the overall programme at June 30, 1985, was:

Applications	Number	Area (hectares)
Awaiting field assessment	48	274 452
Being processed	59	233 585
Withdrawn by lessees	385	1 160 457
Completed	4 056	13 227 220
Totals since inception of the programme to June 30, 1985	4 548	14 895 714
Totals at June 30, 1984	4 428	14 235 483

A rare event in tropical Queensland—radiata pine seedlings blanketed with snow during a freak winter storm at Passchendaele nursery.



MARKETING DEVELOPMENT

Development Projects

A royalty pricing system for cypress pine was introduced from January 1, 1985. This system replaced the historic cypress pine residual stumpage system under which stumpage was calculated by deducting assessed extraction costs from gazetted log prices at sawmilling centres (depots). It was developed in consultation with industry over the past year. The new system offers a number of significant advantages by:

- providing a simple basis for the generation of royalty prices.
- maintaining equity between buyers operating variable timber resources.
- providing a simple system for the application of price updates while preserving relativities between centres.
- deriving log prices comparable to those which applied under the previous residual stumpage system.
- maintaining the present level of revenue flow to the Crown.

Other major development projects included:

- Revision of prescriptions for commercial thinning of exotic pine and hoop pine plantations.
- Revision of exotic pine plantation sawlog and pulp log specifications, and development of a single tree defect allowance procedure. This provides a simple means by which allowance may be made for the occasional mis-shapen sections of plantation stems which depart significantly from standard sawlog specifications.
- Review of the Department's pole harvesting and sales policy. The revised policy provides a more flexible mechanism for the sale of poles suitable for vacuum pressure treatment, while maintaining current hardwood sawlog commitments.
- Continuation of "in yard" measuring trials as an alternative to the traditional "at stump" measurement. Trials begun in 1983 were expanded to include seven sawmills. There are potentially a number of advantages to sawmills if a viable system can be developed. The success of the system seems clearly related to the level of training and supervision given to logging operators. At this stage, it would appear that under some circumstances, measurement of logs at the sawmill can provide significant cost-saving over measurement "at stump" in the forest.
- Close monitoring of the Department's logging guidelines throughout the year. A number of changes were made to ensure Department management objectives continue to be achieved.
- The undertaking of a number of logging trials, by harvesting research staff, including a performance trial in hoop pine thinnings operations at Imbil with a small articulated rubber-tyred timber skidder. This shows some promise as a replacement for the small crawler tractor snigging units presently in use.

The end product—pine stocks at a Brisbane mill.

Pricing

Crown log royalty and stumpage price increases ranging from 8.3 per cent to 12.5 per cent were applied from July 1, 1984.



DIVISION OF ADMINISTRATION



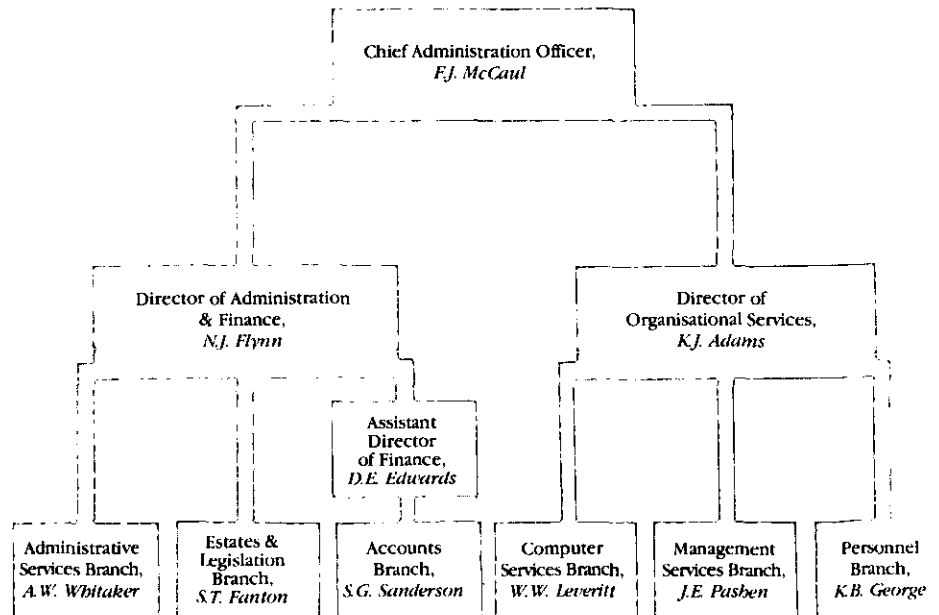
Chief Administration Officer, Mr F. J. McCaul.

In accordance with the concepts of the recent reorganisation, branches of the division will place progressively more emphasis on the formulation and interpretation of policy and providing assistance to other areas. Concurrently, the day-to-day transactional functions will be decentralised where possible to sub-district level.

The increased complexity of public administration, particularly in the fields of legislation, finance, personnel management and the rapid growth in computerisation, has placed demands on the administrative systems which cannot be met through traditional public service processes.

To meet these challenges, managers and key staff need a combination of experience and technical expertise in modern public administration practice. The situation now is that a *considerable number of divisional staff hold tertiary qualifications in accounting, computer science, personnel management, public administration and the like.*

Because of the high demand and the sometimes more favourable career opportunities existing in larger predominantly administrative departments, this Department is experiencing a high staff turnover rate in some areas. In effect the Department often serves to provide a training ground to the more promising officers for higher positions elsewhere. Until better career opportunities can be made available internally, the Department will not obtain a reasonable long-term return for the development opportunities it actively provides to its staff.



ACCOUNTS

The computerisation of the expenditure accounting function was successfully implemented in the Department as from July 1, 1984, using M.S.A. software purchased by the Treasury. The Accounts Payable and General Ledger Modules have since been enhanced by the production of user defined reports for management and control purposes.

Further development work is currently being undertaken by a Department project team on a Budgetary Control Module. This module will enable all accounts to be verified against an approved budget, before processing for payment.

To further develop the expenditure computer system now in place, a micro-computer will be utilised to enhance reporting and to undertake initial work in the area of forecasting and modelling.

Considerable work also has been undertaken in the past year on a computerised payroll system for the Department's 1 100 wages employees in country centres. *Initial testing is being carried out to ensure that the hardware and commercial software packages bought are suitable to our specific needs.* Certain modifications have been identified.

The system will be introduced progressively to eight sub-districts in the 1985/86 financial year after final testing has been carried out.

Development work on the computerisation of the Receipts Accounting function has begun and it is anticipated that a computerised revenue accounting system will be implemented in 1985/86.

Through the continuing development and implementation of computerised systems outlined, the Department is committed to the updating of its accounting functions, which will provide managers with accurate and timely financial budgetary reports.

ADMINISTRATIVE SERVICES

Accommodation

In January, 1985, construction began on a new Technical Services building for the Department at Indooroopilly. The construction, supervised by the Department of Works at a projected cost of \$3.4 million, will provide a five-level structure to accommodate laboratories, work areas, cold rooms, conference/interview rooms, library and administration offices. Landscaping is included in the site works. The construction of the building will provide the Department with one central location incorporating all branches of the Division of Technical Services (Research and Utilisation) with benefits for the staff, industry and the public. Estimated completion date is March, 1986.

Left: Senior Personnel Officer (Development) Glenda Martin conducting a staff development and review scheme workshop. Among those who attended were (from left) Bob Bale (Principal Cartographer), John Duus (District Forester, Maryborough) and Terry Johnston (Manager, Forest Research Branch).

Below: Brian Donovan and Eric Baddeley (front) operating computers in the Department's Personnel Branch.



New or updated office accommodation has been provided at Chinchilla, Maryborough and Rockhampton centres. Negotiations are continuing with the Department of Works and Public Service Board for improved office accommodation at a number of other country centres including Monto, Ingham and Blackbutt.

Typing Services

An improved and expanded word-processing system was installed in head office in April, 1985 and is fully operational. This system, together with new supervisory procedures, has produced good results and created an efficient service for all Divisions.

Purchasing

The Department's policy of introducing direct ordering facilities for country workshops for replacement of mechanical parts, in lieu of a centralised head office system, continued in 1984/85 and all workshops now are operating under this new system.

The new system has shown conclusively that a reduction in down time of equipment under repair is achieved.

The State Stores Board programme to place all contract information on a computer basis is proceeding. A terminal on line to State Stores Board computer has been installed in Stores Section and micro-fiche readers have been supplied to the country offices. State Stores Board will supply up-dated micro-fiche data in lieu of printed material. The effects of these changes have not yet been evaluated.

It is expected that State Stores Board will have the contract listing system fully operational in late 1985.

ESTATES AND LEGISLATION

The Forest Estate

The total area of land set apart as State Forest and Timber Reserve was increased during the year by 14 150 hectares and now stands at 4 476 345 hectares.

The revocation of some 3 404 hectares of land from existing State forests was sanctioned by Parliament.

Legislation

The Forestry Act was amended substantially during the year. The most significant amendments were the provisions for specialised management areas within State forests and to enable the Timber Research and Development Advisory Councils to manage and control funds collected by the Department on their behalf by way of additional stumpage. The amendments also specify managerial and accounting procedures to be adopted by councils.

The provisions relating to the declaration of specialised management areas recognise the increased use being made of State forests for recreational purposes, and provide the Department with powers to effectively manage and control these areas. The provisions also formalise the concept of making appropriate areas of State forest available under permit to competent scientists for research purposes.

Powers have been provided to enable the Department to control the unauthorised use of State forests and also control that minority of people whose behaviour is detrimental to the environment and to the enjoyment of the areas by legitimate users.

Branch staff, in conjunction with the National Parks and Wildlife Service, were actively involved in the drafting of the Fraser Island Public Access Bill which was introduced to Parliament this year. This legislation, which provides for the

Kathy Pincott at the work station of the word processor installed in the typing pool.



authorisation and control of recreation use and vehicle access to the Fraser Island recreation area, has received Royal Assent. Management of the recreation area is vested in a Board consisting of the Conservator of Forests and the Permanent Head of the Department of the Arts, National Parks and Sport. This Board is now operational.

Investigations

During the year, field officers reported 81 breaches of the Forestry Act and six breaches of the Sawmills Licensing Act.

Investigation and processing of these reports together with others received earlier, resulted in 25 convictions and fines of \$6 295.

In addition, an amount of \$31 937 was received by the Department as a result of demands issued for recovery of royalty and investigation costs.

COMPUTER SERVICES

In order to ensure the Department receives an efficient and effective computer consultancy service, the branch has been organised to provide the following services and facilities:

- data preparation, production control and scheduling
- co-ordination and assistance in the development of scientific systems particularly in the research, resources and computer-aided drafting areas
- financial and marketing systems development, and
- micro-computer and word-processing training, installation and support.

Staff are involved in the on-going programme to provide computer facilities in sub-district offices throughout the State, initially for personnel and payroll functions.

The branch also is co-ordinating the examination of a proposal for Department-wide computer networking strategy which could be implemented progressively as funds become available.

An extensive computer training programme has been developed covering topics ranging from introductory computer appreciation to specialist seminars.

The first five-year Computing Strategy Plan was introduced during the year in accordance with the Public Service computer policy. The development and implementation of these strategy plans is essential in order to obtain the most effective use of the Department's management and administration resources.

MANAGEMENT SERVICES

Stage III of the Department's Organisational Review progressed satisfactorily during the year.

The Division of Forest Management was the main focus of attention and the implementation process included the re-writing and publication of the Marketing, Plant Accounting and Works Manuals. Associated staff training in head office and in sub-district offices also was undertaken.

Other projects were begun within the Division of Administration, namely in the Accounts and Administrative Services branches.

The year saw the re-introduction by the branch of structured staff training and development programmes which were deferred during the Organisational Review. A training calendar covering courses on supervisory and management development, effective written communication, and consultancy and development skills was distributed.

Responses indicate a high level of interest in the courses.

The staff training and development programmes also will enable some of the principles established by the Organisational Review to be addressed, particularly the aspects of accountability and responsibility.

An example of well-managed forest in south-east Queensland, featuring Gympie messmate.



PERSONNEL

The year saw the introduction of a number of initiatives. The most important of these were:

- The installation of the Public Service MANPOWER computer system, a highly useful tool in gaining access to staff records.
- Acquisition of new micro-computing facilities and software packages for a wages staff personnel information system. This new system was installed in the Brisbane sub-district office in May. Further installations to other sub-district offices will proceed.
- A staff development and review scheme within selected work units was trialled. With further developments to the scheme, it will be extended to a wider range of staff during next year.

Salaried staff establishment remained at 645 for the year. At June 30, 1984, 1 112 wages staff were employed compared with 1 238 at June 30, 1985. (Appendix 15 sets out the staff distribution). Sixty-nine salaried officers left the Department during the year, including 15 officers who transferred to other Departments and seven officers who retired after long and meritorious service.

Overseas Visits

To ensure Department officers are kept abreast of new developments in the forest industry, and to enable the Department to continue to provide consultancy services to neighbouring countries, a number of officers undertook overseas visits.

Dr D. G. NIKLES—Officer-in-Charge, (Tree Breeding), Forest Research Branch visited the Phillipines, Thailand, Malaysia, Indonesia and Singapore from July 5 to August 31, 1984 and from June 15, 1985 to July 1, 1985, to examine the possibility of Australian support for the ASEAN Forest Tree Improvement Centre as requested by the Australian Development Assistance Bureau.

DR L. E. LEIGHTLEY—Officer-in-Charge, (Wood Chemistry and Preservation), Timber Utilisation Branch, attended the meeting of the International Research Group on Wood Preservation and worked as a visiting scientist at the Forest Products Research Institute in Brazil from May 4 to May 27, 1985.

J. B. SCHAUMBERG—Director, Division of Technical Services, visited the Solomon Islands from February 4 to February 28, 1985, to undertake a short-term aid assignment to evaluate the potential involvement of the Department in a forestry aid project there as requested by the Australian Development Assistance Bureau.

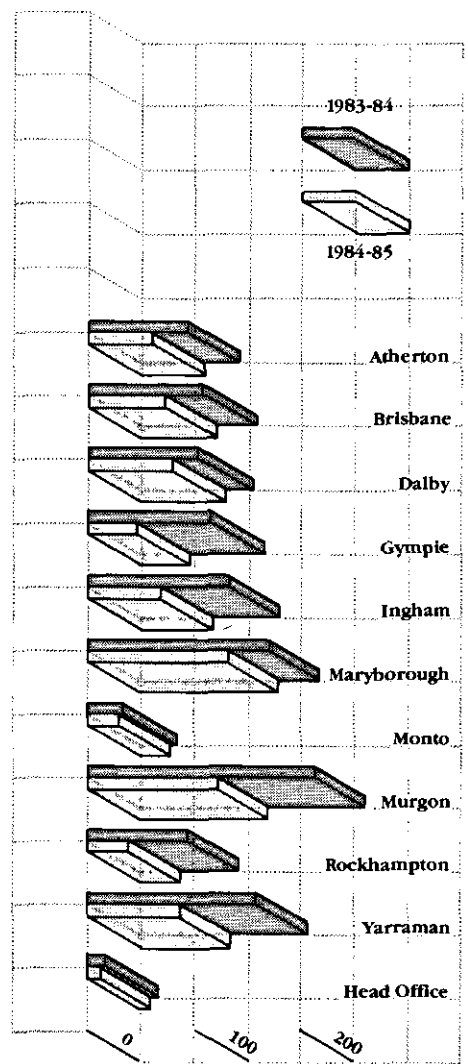
To mark International Youth Year the Department held a series of afternoon tea parties to give the under 25's a chance to mingle informally with executive staff, divisional directors and managers. The party was co-ordinated by the Department of Forestry's Social Club.

Left: Deputy Conservator, John Kelly, chats with Biology extension officer, Lyndal Plant.

Right: Director of Forest Management (Development) Peter Kanowski with (from left) executive Secretary Helen Moscos, Miss Forestry 1985 Valerie Dixon, and typist Jennifer Kleidon.



**LOST TIME INJURY
FREQUENCY RATE**



Dr D. A. GILMOUR—Principal Research Officer, Forest Research Branch, visited Zimbabwe from March 10 to March 30, 1985, to undertake a short-term aid assignment to complete a design mission for the Zimbabwe Forestry Programme as requested by the Australian Development Assistance Bureau.

P. T. CRANNY—Assistant Director, Division of Forest Management, visited New Zealand from April 14, 1985 to May 13, 1985, under the New Zealand-Australia Forest Officer Exchange Scheme.

DR R. J. HAINES—Forester, undertook visits to New Zealand in November, 1984 and Europe and North America from May 24 to June 30, 1985, for the purpose of investigating overseas vegetative propagation techniques to be incorporated in a research programme.

T. RYAN—Assistant Conservator of Forests, accompanied the Honourable the Minister to North America and Mexico to attend the Ninth World Forestry Congress in Mexico City and to visit the west coast timber areas of the United States of America from June 15 to July 9, 1985.

J. J. KELLY—Deputy Conservator of Forests, T. E. JUST—District Forester, Atherton and G. J. BACON—Marketing Projects Officer attended the Coral Sea AUSTIS 1985 Conference in Port Moresby, Papua New Guinea from June 2 to June 7, 1985.

Officers on Overseas Projects

The Department continued to act as managing agent for an Australian Aid Forestry project at Dongmen in China. The resident forestry advisor, Mr Ted Mannion, completed his term in China in June and was replaced by Mr Keith Gould.

Staff Education and Services

Staff members continued to develop their personal and professional skills through the study assistance schemes for both salaried and wages staff. Forty-nine staff members undertook part-time educational courses during the year, including 10 staff who successfully completed higher-level courses ranging from Certificate to Masters degree levels.

Continuing use of employee counselling services occurred during the year. A greater demand for career counselling existed than in previous years and consequently career planning workshops have been organised for next year.

Industrial and Safety

As part of the "preventative maintenance" strategy, district visits and inspections by the industrial and safety officers again represented a major commitment during the year.

Grievances and problems were addressed and solved at the work-face level in most cases. Other issues were resolved satisfactorily without any significant unrest.

Officers from the Department of the Public Service Board helped conduct industrial relations' training programmes at Yarraman and Gympie. These courses were particularly successful and plans are in hand to expand this service to other areas during 1985/86.

The safety officer conducted an extensive range of training for district staff and was involved in the evaluation of new safety and personal protection measures to cope with situations where hazards cannot be totally eliminated. Increasing emphasis also was given to the problem of repetitive movement related injuries and diseases, particularly among keyboard operators. New ergonomically-designed furniture was acquired for evaluation. Medical examinations and operator and supervisor training courses also were implemented to help reduce the incidence of these injuries.

A new job safety manual was completed and distributed to staff. Work began on the compilation of a register of hazardous materials used by the Department.

APPENDIX 1

**STATE FORESTS AND TIMBER RESERVES LISTED BY DISTRICTS AND
SUB-DISTRICTS AT JUNE 30, 1985**

District	Sub-District	No. of Reservations	State Forest Areas (hectares)	No. of Reservations	Timber Reserve Areas (hectares)
Atherton	Atherton	29	365 375.33	24	302 378.2986
	Total	29	365 375.33	24	302 378.2986
Brisbane	Beerburum	24	58 148.2760	2	256.5180
	Brisbane	25	48 772.2391	4	4 118.3211
	Warwick	18	38 081.2280	—	—
	Total	67	145 001.7431	6	4 374.8391
Dalby	Chinchilla	19	457 003.273	1	5 768.0000
	Dalby	12	227 606.206	2	150.2033
	Inglewood	30	213 149.647	—	—
	Roma	40	350 908.017	1	19 652.9600
	Total	101	1 248 667.143	4	25 571.1633
Gympie	Gympie	26	82 828.622	—	—
	Imbil	15	63 721.330	1	0.2094
	Total	41	146 549.952	1	0.2094
Ingham	Ingham	17	288 231.089	2	798.4000
	Total	17	288 231.089	2	798.4000
Maryborough	Bundaberg	14	88 461.797	5	4 977.6700
	Maryborough	24	229 361.909	7	9 427.6000
	Tuan	6	62 918.891	1	0.2099
	Total	44	380 742.597	13	14 405.4799
Monto	Monto	55	367 180.810	23	38 041.7289
	Total	55	367 180.810	23	38 041.7289
Murgon	Jimna	4	46 076.000	1	1 860.0000
	Murgon	21	93 538.911	6	3 981.4983
	Total	25	139 614.911	7	5 841.4983
Rockhampton	Mackay	26	118 375.3407	11	27 715.0008
	Rockhampton	49	637 839.7150	14	136 386.9990
	Total	75	756 215.0557	25	164 101.9998
Yarraman	Benarkin	15	48 398.0340	4	2 811.8240
	Yarraman	11	32 035.4078	2	7.4130
	Total	26	80 433.4418	6	2 819.2370
State Total		480	3 918 012.0726	111	558 332.8543

Note: Kalpowar Sub-District Disbanded—All State Forest and Timber Reserve figures transferred to Monto Sub-District. Emerald Sub-District Disbanded—All State Forest and Timber Reserve figures transferred to Rockhampton Sub-District.

APPENDIX 2

**RESERVATION FIGURES FOR THE YEAR ENDING JUNE 30, 1985
JULY 1, 1984 — JUNE 30, 1985**

	No. of Reservations	Area (hectares)
STATE FORESTS		
Figures as at July 1, 1984	477	3 903 397.5549
State Forests declared	+ 3	+ 1 202.7097
State Forests declared and added to existing State Forests		+ 16 784.012
Timber Reserves declared State Forest		
Timber Reserves declared State Forest and Amalgamated with existing State Forests		+ 449.2
State Forests Revoked		- 3 404.128
State Forests partially Revoked		- 332.7352
Areas Released		- 84.5408
Recomputation of Boundaries		
Amalgamation of existing State Forests		
Parts of State Forest taken for Amalgamation with existing State Forest		
Parts of State Forest Amalgamated with existing State Forest		
Total as at June 30, 1984	480	3 918 012.0726
TIMBER RESERVES		
Figures as at July 1, 1984	112	558 793.5664
Timber Reserves declared		
Timber Reserves declared State Forest		
Timber Reserves declared and added to existing Timber Reserves		+ 42.033
Amalgamation of existing Timber Reserves		
Timber Reserves declared State Forest and Amalgamated with existing State Forest	- 1	- 449.2
Timber Reserves Revoked		- 18.5
Timber Reserves partially Revoked		- 35.0451
Recomputation of Boundaries		
Areas Released		
Total as at June 30, 1985	111	558 332.8543

APPENDIX 3

NET AREA OF SOFTWOOD PLANTATION ESTABLISHED

APRIL 1, 1984 — MARCH 31, 1985

—hectares—

District	Native Conifers			Exotic Conifers						Total Conifers	Total 1983-84	
	Hoop Pine		Total Native	Slash Pine		Caribbean Pine		Other Exotic Conifers				Total Exotic
	New Areas	Others		New Areas	Others	New Areas	Others	New Areas	Others			
Atherton	—	—	—	—	—	115	6	—	—	121	121	128
Brisbane	50	—	50	57	—	147	—	42	—	246	296	215
Gympie	54	—	54	340	20	646	—	54	—	1 060	1 114	1 140
Ingham	—	—	—	—	—	509	—	—	—	509	509	601
Maryborough	—	—	—	319	214	1 246	11	14	—	1 804	1 804	1 480
Monto	59	—	59	—	—	—	—	—	—	—	59	73
Murgon	160	—	160	—	—	—	—	—	—	—	160	80
Rockhampton	—	—	—	—	—	130	—	6	—	136	136	131
Yarraman	77	135	212	—	—	—	—	—	—	—	212	200
Total	400	135	535	716	234	2 793	17	116	—	3 876	4 411	4 048

Total 1983-84	359	92	451	561	49	2 950	21	9	7	3 597	4 048
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APPENDIX 4

***NET AREA OF EFFECTIVE SOFTWOOD PLANTATION**

AS AT MARCH 31, 1985

—hectares—

District	Native Conifers				Exotic Conifers				Total Conifers	Total 1983-84
	Hoop Pine	Bunya Pine	Other Native Conifers	Total Native	Slash Pine	Caribbean Pine	Other Exotic Conifers	Total Exotic		
Atherton	1 017	2	108	1 127	3	1 336	101	1 440	2 567	2 451
Brisbane	1 520	8	4	1 532	13 619	2 064	4 043	19 726	21 258	21 327
Gympie	12 150	225	36	12 411	25 017	4 153	643	29 813	42 224	41 158
Ingham	4	—	1	5	2	5 158	111	5 271	5 276	4 789
Maryborough	1 467	3	28	1 498	27 470	12 265	162	39 897	41 395	39 826
Monto	3 023	1	1	3 025	22	3	13	38	3 063	3 003
Murgon	8 586	126	1	8 713	1	—	46	47	8 760	8 601
Rockhampton	261	—	1	262	1 008	5 365	73	6 446	6 708	6 575
Yarraman	14 957	122	4	15 083	518	400	1 601	2 519	17 602	17 491
Total	42 985	487	184	43 656	67 660	30 744	6 793	105 197	148 853	145 221

Total 1983-84	42 505	488	185	43 178	67 093	27 980	6 970	102 043	145 221
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* The net effective area as at 31-3-85 consists of the net effective area as at 31-3-84 plus the net area established during 1984-85 less corrections for write-offs, replantings, boundary recomputations and re-checks.

APPENDIX 5

***NET AREA OF EFFECTIVE BROADLEAVED PLANTATION**

AS AT MARCH 31, 1985

—hectares—

District	Native Forest Hardwoods					Other Broadleaf Species	Miscellaneous Species	Total	Total 1983-84
	Rose Gum and Sydney Blue Gum	Grey Iron-bark	Black-butt	Other Native Forest Hardwoods	Total Native Forest Hardwoods				
Atherton	1	16	—	12	29	151	11	191	184
Brisbane	130	84	91	42	347	3	23	373	380
Gympie	385	107	111	157	760	89	15	864	864
Ingham	—	—	—	1	1	1	4	6	8
Maryborough	—	—	48	1	49	—	21	70	78
Murgon	8	6	4	—	18	9	1	28	27
Rockhampton	—	—	—	1	1	1	4	6	5
Yarraman	32	97	—	4	133	35	31	199	241
Total	556	310	254	218	1 338	289	110	1 737	1 784

Total 1983-84	566	336	254	218	1 374	290	120	1 784
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* Previous figures have been adjusted for write-offs, replantings, boundary recomputations and re-checks.

APPENDIX 6

AREAS OF NATURAL FOREST TREATED 1984-85

— hectares —

District	Eucalypt Forests	Cypress Pine Forests	Total	Total 1983-84
Atherton	37	—	37	—
Brisbane	248	—	248	100
Dalby	—	5 735	5 735	7 160
Gympie	102	—	102	121
Maryborough	—	—	—	64
Monto	—	—	—	110
Murgon	956	—	956	—
Yarraman	50	—	50	40
Total	1 393	5 735	7 128	7 595

Total 1983-84	435	7 160	7 595
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APPENDIX 7
OPERATIONAL STATISTICS

1983-84		1984-85
4 048	Softwood Plantation Established (hectares)	4 441
	Nursery Stock* Departmental Use—	
	Hoop Pine—	
402 000	Container	440 616
	Caribbean Pine—	
192 700	Container	130 089
2 980 000	Open Root	2 425 737
	Slash Pine—	
	Container	4 116
686 300	Open Root	917 477
	Caribbean/Slash Hybrid—	
	Container	15 009
43 370	Open Root	53 115
	Ocote/Caribbean Hybrid—	
	Container	1 520
	Radiata Pine—	
16 000	Open Root	31 153
	Loblolly Pine—	
1 700	Container	2 925
35 000	Open Root	19 000
	Ocote Pine—	
	Container	2 492
	Eucalypt—Others—	
42 900	Container	63 919
	Nursery Stock, Sales—	
142 800	Forest Plots	100 788
458 541	Amenity Stock	452 291
\$280 868	Total value of seedlings sold	\$344 715
	Seed sold—	
\$135 568	Value	\$187 400
	Weed control—	
10 663	Native Pine Plantation (hectares)	6 283
8 834	Exotic Pine Plantation (hectares)	13 137
	Fertilizing—	
2 799	Establishment Fertilizing (hectares)	3 705
1 540	Maintenance Fertilizing (hectares)	8 073
	Pruning—	
3 238	First (hectares)	2 823
4 832	Final (hectares)	4 373
	Operative Plant as at June 30—	
486	Motor Vehicles and Trucks	460
21	Graders	20
79	Rubber-tyred Tractors and Loaders	82
36	Crawler Dozers	31

*All Departmental use information refers to the 12 months period April 1 to March 31.

APPENDIX 8

MILLING TIMBER REMOVALS UNDER HAULAGE CONTRACT

The table shows the quantities hauled and payments made for the haulage of milling timber by contractors to the Department.

— cubic metres gross measure —

	Hoop Pine	Forest Hardwoods	Scrubwoods	Total Volume	Payments Made (\$)
1984-85	10 663	662	92	11 417	361 093
1983-84	10 300	2	13	10 315	328 854

APPENDIX 9

MILLING TIMBER REMOVALS FROM CROWN LANDS 1984-85

— cubic metres gross measure —

NATIVE FORESTS

District	Forests Hardwoods	Rain-forest Structural Timber	Prime Cabinet Woods	Misc. Cabinet Woods	Hoop, Bunya, Kauri Pines	Cypress Pine	Other Pines	Total	Total 1983-84
Atherton	4 521	32 052	18 204	26 921	1 395	—	119	83 212	99 399
Brisbane	25 364	34	5	716	86	282	—	26 487	23 220
Dalby	19 612	—	—	—	—	117 422	—	137 034	116 706
Gympie	30 710	152	20	297	1 230	37	—	32 446	30 640
Ingham	1 647	5 588	7 015	5 935	193	—	23	20 401	20 787
Maryborough	42 877	34	19	19	17 229	—	—	60 178	50 937
Monto	31 049	17	3	55	3 262	—	—	34 386	33 971
Murgon	22 805	56	—	7	4 544	—	—	27 412	24 351
Rockhampton	30 601	2 484	158	2 115	176	1 544	4	37 082	41 821
Yarraman	2 376	82	10	174	101	—	—	2 743	7 751
Total	211 562	40 499	25 434	36 239	28 216	119 285	146	461 381	449 583

Total 1983-84	204 374	46 530	27 784	43 881	27 877	99 032	105	449 583
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**APPENDIX 9
PLANTATIONS**

District	Native Conifers	Exotic Conifers	Non-Conifers	Total	Total 1983-84
Atherton	3 014	1 206	—	4 220	2 579
Brisbane	147	60 966	—	61 113	47 408
Gympie	25 950	31 018	—	56 968	51 233
Maryborough	879	34 404	—	35 283	23 759
Monto	5 505	—	—	5 505	6 763
Murgon	5 106	233	—	5 339	3 954
Rockhampton	—	11 400	—	11 400	16 749
Yarraman	57 279	4 712	267	62 258	52 218
Total	97 880	143 939	267	242 086	204 663
Total 1983-84	88 177	116 378	108	204 663	

APPENDIX 10

PULPWOOD REMOVALS FROM CROWN LAND, 1984-85

—cubic metres gross measure—

Forest	Species	District					Total	Total 1983-84
		Brisbane	Gympie	Maryborough	Murgon	Yarraman		
Plantation	Native Conifers	—	—	—	582	—	582	1 273
Plantation	Exotic Conifers	26 378	20 356	32 041	18	2 819	81 612	77 030
Native Forest	Non Conifers	—	—	—	—	5 201	5 201	6 570
Total		26 378	20 356	32 041	600	8 020	87 395	84 873
Total 1983-84		21 910	24 120	26 243	1 260	11 340	84 873	

APPENDIX 11

MISCELLANEOUS REMOVALS FROM CROWN LANDS

1983-84	Product	1984-85	Unit
	Miscellaneous Timber Products		
	Sleepers—		
1 750	1.2 metres	—	pieces
42 899	1.5 metres	38 575	pieces
—	1.8 metres	304	pieces
7 702	2.0 metres	—	pieces
906	2.1 metres	2 724	pieces
247 341	2.15 metres	183 191	pieces
21	2.3 metres	—	pieces
—	2.45 metres	936	pieces
1 689	2.6 metres	—	pieces
	Transoms, Headstocks		
458	Crossings, etc.	480	cubic metres
271	Turnout Timbers	302	cubic metres
157	Bridge Timbers	137	cubic metres
28 952	Girders, Corbels, Piles and Sills	14 865	metres
46	Girder Logs	312	cubic metres
112 111	Poles	137 072	metres
327 677	Fencing Material—Round	545 715	metres
197 350	Fencing Material—Split	515 677	pieces
181 679	Mining Timber—Round	62 344	metres
131	Mining Timber—Sawn	97	cubic metres
9 000	Mining Timbers—Others	75 000	pieces
99 880	Round Timber	161 326	metres
99	Head and Limb Logs	694	cubic metres
16	House Blocks	—	metres
—	Offcuts	2 228	cubic metres
794	Offcuts	—	pieces
485	Stakes	—	pieces
9	Stumps	—	cubic metres
—	Black Wattle	35	pieces
98	Chopping Blocks	196	cubic metres
10 453	Fuelwood	5 926	tonnes
43 924	Landscape Timbers	67 877	pieces
3 644	Landscape Timbers	4 611	cubic metres
7	Leaf Mould	41	cubic metres
—	Leaf Mould	7	bags
1	Charcoal	—	tonnes
—	Bunya Nut Cones	103	number
1	Pine Cones	66	cubic metres
1	Pine Tops	—	pieces
31	Flitches	452	cubic metres
2	Thinnings	—	tonnes
1 115	Thinnings	401	cubic metres
35	Ironbark Bark	35	tonnes
3	Tea Tree Bark	1	cubic metres
2	Other Bark	10	tonnes
65	Fibre	27	tonnes
15	Sandalwood	38	tonnes
24	Woodchip	18	tonnes
	Non-Timber Products		
29	Beehives	8	number
9 290	Flora	11 842	pieces
67	Lawyer Cane	99	tonnes
29	Peat	11	tonnes
180	Turf	—	cubic metres
1 619 617	Quarry Material	2 146 641	cubic metres
52	Landscaping Rock	195	tonnes
86	Slate	83	cubic metres
30	Granite	—	bags
—	Marble	1 535	cubic metres

APPENDIX 12

MILLING TIMBER REMOVALS FROM PRIVATE LANDS 1984-85

—cubic metres gross volume—

Species	Atherton	Brisbane	Dalby	Gympie	Ingham	Maryborough	Monto	Murgon	Rockhampton	Yarraman	Total	Total 1983-84*
Hoop, Bunya and Kauri Pines	2	867	—	2 370	—	531	—	659	174	1 282	5 885	7 178
Cypress Pine	10	81	47 027	—	—	5	—	—	755	79	47 957	45 225
Other Pines	20	566	—	120	—	1	—	—	68	—	775	531
Forest Hardwoods	790	57 452	10 964	12 395	7 190	53 208	20 089	10 142	42 980	15 279	230 489	227 232
Rainforest Structural Timbers	8 229	1 669	—	—	1 232	158	—	—	2 128	—	13 416	11 410
Prime Cabinetwoods	1 976	32	—	—	222	4	—	—	245	—	2 479	1 105
Miscellaneous Cabinetwoods	4 486	56	—	1	794	6	—	—	1 085	4	6 432	5 923
Plantations—Native Conifers	17	701	—	—	—	—	—	—	—	37	755	214
Plantations—Exotic Conifers	33	9 730	—	9	—	16	—	—	—	—	9 788	4 436
Imported	72	7 574	—	—	—	—	—	—	—	—	7 646	4 285
Total	15 635	78 728	57 991	14 895	9 438	53 929	20 089	10 801	47 435	16 681	325 622	307 539

N.B. Volumes shown in the above table have been estimated due to incomplete statistics being available at time of compilation.

*Corrected figures

FOREST PRODUCE AND FOREST INDUSTRIES

PULPWOOD PROCESSED FROM PRIVATE LANDS 1984-85

—cubic metres gross measure—

Species	Brisbane	Total	Total* 1983-84
Forest Hardwoods	78 523	78 523	83 891
Plantation—Exotic Conifers	24 873	24 873	22 525
Total	103 396	103 396	106 416

*Corrected Figures

APPENDIX 13

COMPARATIVE STATEMENT OF RECEIPTS FOR THE YEARS 1983-84 AND 1984-85

Receipts Previous	Note Ref. No.	Particulars of Receipts	Estimate	Receipts	Receipts compared with Estimate	
					Greater	Less
\$		CONSOLIDATED REVENUE FUND	\$	\$	\$	\$
56 336		Receipts for Goods/Services— Plan Printing Service	70 000	66 549		3 451
96 049		Miscellaneous and Recoveries— Expenditure Recovered— Dongmen Forest Farm Project Commonwealth Wages Pause Programme	73 000	77 197	4 197	
35 000		Community Employment Programme	—	—		
16 040		General	3 992	9 375	5 383	
1 922		Sales of Government Property	—	—		
12 850		Other— Commonwealth Wages Pause Programme	17 000	10 300		6 700
3 400		Miscellaneous	—	—		
13 515			1 000	2 715	1 715	
235 112		Total—Consolidated Revenue Fund	164 992	166 136	11 295	10 151
		LOAN FUND				
868 393	1	Miscellaneous Receipts and Recoveries— Sale of Vehicles and Plant	—	—		
440 367	1	Excess Plant Hire	—	—		
98 238		Miscellaneous	—	245	245	
		Intra Public Accounts Unrequited Transfers— Amount provided from Trust & Special Funds— Special Projects Funds Community Employment Programme	—	—		
59 400			—	—		
—	2		98 079	169 428	71 349	
1 466 438		Total—Loan Fund	98 079	169 673	71 594	—
		FORESTRY AND LUMBERING FUND				
666 000		Commonwealth Payments— Dongmen Project	600 000	630 848	30 848	
57 200		Gympie Fuelwood Project	91 600	103 750	12 150	
10 281 280		Territorial— Forestry Products Receipts	13 100 000	13 182 367	82 367	
507 340		Freeholding of Grazing Selections	450 000	536 463	86 463	
2 130 440		Contract Timber Supplies	2 450 000	1 885 453		564 547
243 041		Land Rentals	268 000	288 558	20 558	
435 302		Receipts for Goods/Services— Plants and Seeds	495 000	561 115	66 115	
5 294 636		Miscellaneous and Recoveries— Plant Hire Receipts	5 696 000	6 288 501	532 501	
289 219		T.R.A.D.A.C.	330 000	360 961	30 961	
—		Vegetative Propagation Project	—	29 000	29 000	
—		Newsprint Trial	150 000	202 987	52 987	
327 014		Miscellaneous	348 000	296 940		51 060
		Intra Public Accounts Unrequited Transfer— Amount provided from Consolidated Revenue Fund— Natural Disasters	98 000	65 206		32 794
312 144		Amount provided from Trust and Special Funds— Community Employment Programme	—	7 725	7 725	
—			—	—		
20 543 616	3	Total—Forestry and Lumbering Fund	24 076 600	24 379 874	951 675	648 401

APPENDIX 13—continued

COMPARATIVE STATEMENT OF RECEIPTS FOR THE YEARS 1983-84 AND 1984-85—continued

Receipts Previous	Note Ref. No.	Particulars of Receipts	Estimate	Receipts	Receipts compared with Estimate	
					Greater	Less
\$		FORESTRY DEVELOPMENT FUND	\$	\$	\$	\$
83 836		Commonwealth Payments— Diesel Fuel Rebate	25 000	25 021	21	
—		Miscellaneous and Recoveries— Sale of Vehicles and Plant	645 000	568 188		76 812
4 700 000		Financing Receipts— Repayable Advances—Special Project Fund	4 000 000	4 000 000		
19 846 000		Repayable Advances—Loan Fund Commonwealth Wages Pause Programme	21 950 000	21 766 000		184 000
582 146		Intra Public Accounts Unrequited Transfers— Amount provided from Trust and Special Funds— Plant Account	—	—		
—		Community Employment Programme	574 000	1 296 062	722 062	
234 776		Special Projects Fund	70 590	203 074	132 484	
343 055			—	—		
25 789 813	4	Total—Forestry Development Fund	27 264 590	27 858 345	854 567	260 812

Note 1: A change in accounting policy in relation to the financing of plant has resulted in collections in these categories being receipted to Forestry Development Fund as from 1 July 1984. This change was agreed to by Treasury Department.

Note 2: Receipts have exceeded estimate due to new projects being approved after the estimates were framed.

Note 3: Receipts have exceeded estimate primarily because of—

- (a) plant hire usage being greater than anticipated due to more efficient utilisation of Departmental plant.
- (b) an agreement being signed during the year by the Department for research on the vegetative propagation of certain tree species. This project was not foreseen at the time of estimate preparation.

Increases have been substantially offset by reductions, the main one being a shortfall in demand in relation to Contract Timber Supplies.

Note 4: Receipts have exceeded estimate primarily because of—

- (a) a larger than anticipated operating surplus being transferred to the Plant Account. This surplus was the result of increased Plant Hire receipts and lower maintenance costs being incurred in the Forestry and Lumbering Fund.

- (b) additional Community Employment Programme projects being approved after the estimates were framed.

APPENDIX 14

DEPARTMENTAL APPROPRIATION ACCOUNT FOR 1984-85

1983-84 Expenditure	Note Ref. No.	Headings of Expenditure	Appropriations	Subdivisional Transfers	Appropriations as adjusted by Subdivisional Transfers	Total Expenditure	Unforeseen Expenditure— Amount to be Appropriated	Lapsed Appropriations
\$		CONSOLIDATED REVENUE FUND	\$	\$	\$	\$	\$	\$
		Supply Services and Unforeseen Expenditure—						
		Department of Forestry—						
13 276 398		Salaries	14 091 000	—	14 091 000	14 348 588	257 589	—
37 916		Termite Eradication	43 000	-16 000	27 000	26 974	—	26
123 088		Fares, Printing, Stores etc.	—	—	—	—	—	—
2 177 287		Travelling Expenses & Incidentals	—	—	—	—	—	—
—		Printing and Stores	220 000	—	220 000	219 411	—	589
—		Allowances & Incidentals	3 866 040	—	3 866 040	3 944 710	78 670	—
383 879		Recreation Facilities—Maintenance	490 000	+16 000	506 000	513 807	7 808	—
172 332	1	Cash Equivalent of Long Service Leave	180 000	—	180 000	129 187	—	50 813
16 170 900		Total—Consolidated Revenue Fund	18 890 040	—	18 890 040	19 182 677	344 067	51 428
		LOAN FUND						
		Supply Services and Unforeseen Expenditure—						
		Forestry—						
213 412	2	Recreation Facilities— Construction	150 000	+184 000	334 000	496 063	162 064	—
19 846 000		Amount credited to Forestry Development Fund	21 950 000	-184 000	21 766 000	21 766 000	—	—
20 059 412		Total—Loan Fund	22 100 000	—	22 100 000	22 262 063	162 064	—
		FORESTRY AND LUMBERING FUND—						
5 950 000	3	Interest and Redemption on Loans	9 014 103	-702 759	8 311 344	7 822 318	—	489 026
1 730 637		Contract Timber Supplies	2 019 000	-367 000	1 652 000	1 425 864	—	226 136
4 051 696		Marketing	3 482 272	+1 060 759	4 543 031	4 433 783	—	109 248
1 665 949		Roads—Maintenance & Subsidies	—	—	—	—	—	—
4 721 135		Maintenance of Plant	5 126 000	—	5 126 000	4 952 278	—	173 722
548 289		Maintenance of Capital Improvements	2 912 140	+74 000	2 986 140	2 993 503	7 363	—
—		Timber Utilisation	285 600	-65 000	220 600	219 978	—	622
665 823		Dongmen Project	600 179	—	600 179	630 623	30 444	—
273 768	4	Amounts transferred to TRADAC	412 000	—	412 000	356 648	—	55 352
279 429		Newsprint Trial	220 571	—	220 571	220 571	—	—
51 826		Gympie Fuelwood Project	96 974	—	96 974	95 758	—	1 216
—	5	Transfer to Plant Account—	574 000	—	574 000	1 296 062	722 063	—
—	6	Forestry Development Fund	—	—	—	5 523	5 523	—
—		Vegetative Propagation Project	—	—	—	—	—	—
19 938 552		Total—Forestry & Lumbering Fund	24 742 839	—	24 742 839	24 452 909	765 393	1 055 322
		FORESTRY DEVELOPMENT FUND—						
21 313 918	7	Reforestation	21 073 083	-800 000	20 273 083	20 113 406	—	159 677
797 560		Land Acquisition	414 000	-242 506	171 494	31 283	—	140 211
1 729 979		Purchase of Plant	2 000 000	+600 000	2 600 000	2 599 991	—	9
1 759 965		Road Construction	—	—	—	—	—	—
—		Construction of Capital Improvements	2 050 000	+442 506	2 492 506	2 631 448	138 942	—
—		Forest Research	760 000	—	760 000	759 830	—	170
25 601 422		Total—Forestry Development Fund	26 297 083	—	26 297 083	26 135 958	138 942	300 067

APPENDIX 14

NOTES BY ACCOUNTABLE OFFICER

- | | |
|--------------------------|--|
| <p>Note
Ref. No.</p> | <ol style="list-style-type: none"> 1. This appropriation was based on expected resignations and retirements. Two officers deferred their retirement which resulted in a saving of \$50 813. 2. Additional expenditure was incurred on the continued upgrading of Recreation Facilities in State Forests because existing facilities were not adequately coping with increasing public usage. 3. The reduction in expenditure was caused primarily by a decrease in demand for railway timbers supplied under Forest Service Orders. Costs associated with the supply of these timbers were therefore reduced. 4. Reduced expenditure was caused primarily by the deferment of publications in addition to long service leave due being provided for in the budget but not availed of. 5. Excess expenditure was incurred due to additional receipts being available for transfer to Forestry Development Fund to finance future purchases of vehicles and plant. 6. The Department recently entered into an agreement for research on the vegetative propagation of certain tree species. Because this agreement was not finalised until after the Budget was approved no appropriation was made. 7. Reduced expenditure on this appropriation was caused by extended negotiations on land to be purchased not being finalised. |
|--------------------------|--|

STATEMENT OF OTHER FINANCIAL INFORMATION 1984-85

LOSSES OR DEFICIENCIES—	Cases	Losses \$	Recoveries \$
Public moneys or other moneys due to—			
Salary Overpayment from previous year	—	—	8 616
Public property or other property due to—			
Stealing or other offence	30	24 002	—
TOTAL—	30	24 002	8 616
UNEXPENDED ADVANCES TO AGENCY DEPARTMENTS—			
Moneys held unexpended in the Department of Mapping and Surveying Special Standing Fund as at June 30, 1985 for the purpose of providing surveying services to the Estates and Legislation Branch of this Department amounted to			\$10 092
LOAN INDEBTEDNESS			\$301 992 507

DEPARTMENTAL CERTIFICATE

We certify that—

- (a) the foregoing financial statements with notes and other financial information appended thereto are in the form required by the prescribed requirements and are in accordance with the accounts and records of the Department.
- (b) in our opinion—
 - (1) the prescribed requirements in respect of the establishment and keeping of accounts have been complied within all material respects;
 - (2) expenditure has been correctly charged in accordance with the *Financial Administration and Audit Act 1977-1981* and the statements fairly show the disposal of moneys issued out of the public accounts by the Treasurer for the use of the Department; and
 - (3) the foregoing statements have been drawn up so as to present a true and fair view, on a basis consistent with that applied in the financial year last preceding, of the transactions of the Department for the financial year ended June 30, 1985, and of the financial position as at the close of that year.

F. J. McCAUL
Chief Administration Officer

J. J. KELLY
Conservator of Forests

CERTIFICATE OF THE AUDITOR-GENERAL

I have examined the accounts of the Department of Forestry for the financial year ended June 30, 1985, as required by the *Financial Administration and Audit Act 1977-1981* and certify as follows—

- (a) I have received all information and explanations which I have required;
- (b) the foregoing departmental statements of the accounts subsidiary to the public accounts are in the form required by the prescribed requirements and are in agreement with the accounts of the Department;
- (c) in my opinion—
 - (i) the prescribed requirements in respect of the establishment and keeping of accounts have been complied with in all material respects;
 - (ii) moneys issued out of the public accounts by the Treasurer pursuant to the aforementioned Act for use by the Department have been properly accounted for; and
 - (iii) the foregoing statements have been drawn up so as to present a true and fair view, on a basis consistent with that applied in respect of the financial year last preceding, of transactions for the financial year ended June 30, 1985, and the financial position at the close of that year.

V. C. DOYLE
Auditor-General of Queensland

APPENDIX 15

STAFF DISTRIBUTION—JUNE 30, 1985

	Head Office	District	Total	Total 30-6-84
*Salaried Officers—				
Graduate	103	62	165	160
Technical	76	34	110	112
Field Supervisory	1	104	105	107
Administrative/Clerical	135	121	256	257
Miscellaneous	8	1	9	9
Sub-Total	323	322	645	645
Wages Employees—				
Reforestation	11	776	787	766
Marketing	16	155	171	136
Construction of Capital Improvements	2	67	69	27
Maintenance of Plant and Capital Improvements	8	147	155	157
Recreation Facilities—				
Construction & Maintenance	—	39	39	14
Miscellaneous	5	12	17	12
Sub-Total	42	1 196	1 238	1 112
Total	365	1 518	1 883	1 757
Total 30-6-84	356	1 401	1 757	

* Figures in this category are based on Public Service Board Establishment and not on actual staff numbers as in previous years.

APPENDIX 16

PUBLICATIONS—GENERAL

Tree Advice

Planting Trees on the Farm

“WoodWorks” Informers

Timber Defects

Timber Conversion

“WoodWorks” Work Sheet

Timber Conversion—Levels 7-9

Brochures

Brigalow Conservation

Your Guide to Forestry Advice

Gympie Training Centre

Urban Green

Trees

Tree Planting Guide

Books

Forest Management in Queensland—Part One

Forest Management in Queensland—Part Two

Periodicals

“Between the Leaves” (Department Newsletter)

PUBLICATIONS—RESEARCH

Research Notes

- No. 39 PANOW, S. and NESTER, M. R. (1984). Some moisture content/temperature/relationship for individual timber specimens during high temperature drying.
- No. 40 ANDERSON, M. W., GARTHE, R. J. and NESTER, M. R. (1984). Point sampling of small size classes in native hardwood detailed yield plots. 10pp.

Unpublished Reports

- No. 14 GRIMMETT, J., MOFFAT, A. and BRAGG, C. (1984). Evaluation of a number of wood preservatives as water vapour barriers. 9pp.
- No. 15 KENNEDY, J. (1984). Solar kiln seasoning of white cypress pine. 4pp.

Technical Papers

- No. 38 DOIMO, Luigino (1984). What is Wood? A review of the major chemical components. 20 pp.

Technical Notes

- No. 12 GORDON, P. (1984). Height/diameter relationships for slash pine in south-east Queensland. 10pp.

Timber Notes

- No. 15 The Timber Utilisation Branch of the Department of Forestry. (1984).
- No. 16 McDONALD G. (1984). Legal requirements for lyctus susceptible timber in reveals and mouldings. 2pp.
- No. 17 GREVE, D. M. (1984). Building timber decks to last. 3 pp.
- No. 18 KENNEDY, M. J. (1984). Why paint exterior timber?

PUBLICATIONS—MAPS

Reference	Map Name	Edition	District			
Scale 1:10 000						
8064-344	Carter Creek	1	Atherton	Neerdie Sh. 2	1	Gympie
8064-134	Clifton Beach	1	Atherton	Neumgna (North)	1	Yarraman
Scale 1:15 000						
	Abergowrie Sh. 2	1	Ingham	Neumgna (South)	1	Yarraman
	Abergowrie Sh. 3	1	Ingham	Passchendaele	1	Brisbane
	Amamoor (East)	1	Gympie	Scale 1:25 000		
	Amamoor (West)	1	Gympie	8062-11	South Johnstone	1 Atherton
	Beerburum West			8062-12	Mena Creek	1 Atherton
	Sh. 2 (North)	1	Brisbane	8062-44	Millaa Millaa	1 Atherton
	Beerburum West				Kullogum	1 Maryborough
	Sh. 2 (South)	1	Brisbane		Warro	1 Maryborough
	Cooroorra	1	Gympie		Watalgan	1 Maryborough
	Head of the River			Scale 1:50 000		
	Sh. 1	2	Yarraman/Murgon	8062-3	Tully Falls	1 Atherton
	Head of the River			8062-4	Millaa Millaa	1 Atherton
	Sh. 2	2	Yarraman/Murgon	8063-3	Kuranda	1 Atherton
	Head of the River			8064-4	Macalister Range	1 Atherton
	Sh. 3	2	Yarraman/Murgon	8750-3	Expedition Range	2 Rockhampton
	Mount Binga			9341-1	Cunninghams Gap	3 Brisbane
	(North)	1	Yarraman	9344-4	Nanango	3 Yarraman/Murgon
	Mount Binga			9444-4	Kenilworth	1 Gympie
	(South)	1	Yarraman	Scale 1:500 000		
					Central Queensland	
					East	2

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