

Presented to Parliament by Command

**QUEENSLAND DEPARTMENT OF FORESTRY
ANNUAL REPORT 1985-86**

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

Dear Mr Glasson

It is with pleasure that I report to you on the activities of the Department of Forestry during the financial year 1985/86.

A buoyant timber industry during the early months of the year resulted in removal of the largest volume of sawlogs from Crown lands since 1981/82.

The fact that over 45 per cent of this harvest is now provided from the Department's softwood plantation resource is a tribute to the foresight and dedication of the forest managers who initiated and expanded the plantation programme during the last 60 years.

Towards the close of the year a decline in building commencements due to reduced availability of housing finance and higher interest rates resulted in a sharp slump in sales of timber products.

This downturn, which will hopefully be of short duration, again highlights the heavy dependence of the forest based industries on the domestic housing market, and the benefits which will accrue from planned market diversification and the further development of integrated wood processing plants capable of supplying geographically extensive markets with a wide range of value-added timber products.

Comprehensive quality assurance programmes, introduced by industry in all sawn timber sectors in June 1986, constitute another important facet of the self-regulated marketing strategies needed to ensure continuing viability of forest based enterprises.

Refinement of the Department's management structure continued with an in-depth review of computing activities by a firm of computer consultants, who produced detailed recommendations expected to ensure efficient future management of information technology within the Department.

The Department was delighted to learn of the award in the New Year's Honours List of the Imperial Service Order to my predecessor, Mr Jim Smart, who retired as Conservator of Forests during the year. This award is the first of its kind to an officer of the Department and on behalf of all the staff I congratulate Mr Smart on this honour.

In presenting this report I am sure that I can also speak for Mr Smart in expressing sincere appreciation to the staff of the Department of Forestry for their loyal and unflagging efforts throughout the year, and to you as Minister for your wholehearted support and generous assistance at all times.

Yours faithfully



A handwritten signature in black ink, appearing to read 'J.J. Kelly'.

(J.J. KELLY)
Conservator of Forests

INTRODUCTION BY THE CONSERVATOR OF FORESTS

	1985-86	1984-85	1983-84	1982-83	1981-82
Crown Forest Estate					
State Forest — 000s hectares	3 930	3 918	3 903	3 869	3 869
Timber Reserve — 000s hectares	553	558	559	571	572
Plantation Forest Management					
Total area — 000s hectares	155	151	147	143	139
New area established — hectares	4 935	4 042	3 879	4 414	5 939
Replanted area — hectares	876	385	169	416	372
Native Forest Management					
Area treated — hectares	5 751	7 128	7 595	8 605	8 947
Nursery Stock Produced					
For Departmental use — 000s	5869	4 107	4 400	6 048	7 235
For Amenity and Forest Plot sales — 000s	398	553	601	1 129	1 059
Hazard Reduction (Prescribed) Burning					
Native Forests — 000s hectares	128	154	76	100	106
Plantation — 000s hectares	13	10	20	14	12
Wildfires					
Number of fires	78	81	10	270	64
Area burnt — 000s hectares	15	19	—	197	35
Roads Constructed					
Kilometres	292	365	253	282	266
Timber Cut on Crown Lands					
Native Forests — 000s cubic metres	471	467	456	406	575
Plantation — 000s cubic metres	399	324	283	210	303
Expenditure					
Forestry Development Fund \$000s	28 863	26 136	25 601	24 835	20 480
Consolidated Revenue Fund \$000s	20 907	19 183	16 171	14 914	13 394
Loan Fund Recreation Facilities — Construction \$000s	694	496	213	123	183
Forestry and Lumbering Fund \$000s	16 907	15 335	13 989	12 567	12 180
Staff					
Wages	1 143	1 238	1 112	1 215	1 087
Salaries	646	645	645	645	642



FIVE YEAR SUMMARY

Sale of Plantation Timber

Expressions of interest were sought during the year for the purchase and utilisation of the last major uncommitted plantation resource in southern Queensland, located in the Gympie-Maryborough-Murgon region.

Annual volumes available for sale include 300 000 cubic metres of exotic pine suitable mainly for pulp or processed board manufacture and 130 000 cubic metres of high value hoop pine final crop mill log resource suitable for conversion to plywood and sawn timber.

Inclusion of the relatively large volume of high grade hoop pine in the call for expressions of interest was based on a recognition of the need to provide potential purchasers with maximum processing flexibility. The success of this approach became evident with the registration of 29 expressions of interest including a number of proposals for the development of large integrated wood processing industries in the Gympie-Maryborough area. Production proposals cover pulp and paper, panel board, veneer and sawn timber. Registered firms were requested to submit firm proposals by 1 September 1986.

Cyclone Winifred

Severe tropical cyclone Winifred with a central pressure of 960 mb crossed the coast of north Queensland just north of Mission Beach on 1 February 1986.

Hurricane force winds with an estimated maximum speed in excess of 250 km per hour severely affected large areas of forest from Cairns to Cardwell and west to the Atherton Tableland. The cyclone caused damage to hoop pine plantations on the Atherton Tableland, to Caribbean pine plantations in the Kennedy and Cardwell areas and to rainforest near Mission Beach and Innisfail.

Satellite imagery, low altitude aerial photography and field investigations have been used to define the total area of rainforest affected by the cyclone and to assess the impact on the short and long-term supply of mill logs. Approximately 3 500 cubic metres of hoop pine plantation timber is being salvaged by the local sawmilling industry.

Damage to Caribbean pine plantations was extensive, with about 4 750 hectares affected, of which 500 hectares were severely damaged.

Approximately 40 000 cubic metres of sawlog quality and 16 000 cubic metres of pulpwood and roundwood quality material is salvageable.

The restanding of young wind-affected trees commenced following approval of Community Employment Programme funding.

In addition to damage caused to plantation pine, about \$550 000 in damage was caused to roads and \$55 000 to recreation facilities.

A total picture of damage to the rainforest will take some time to obtain. Where the wind was at its full force, the rainforest was severely damaged, regardless of its past history. The cyclone appears to have had no regard for the logging history of an area, and there are sections of virgin rainforest which suffered as much damage as did some logged rainforest. Where there was a funnelling effect up gullies and through spur saddles, the damage was particularly severe in both logged and unlogged forest.

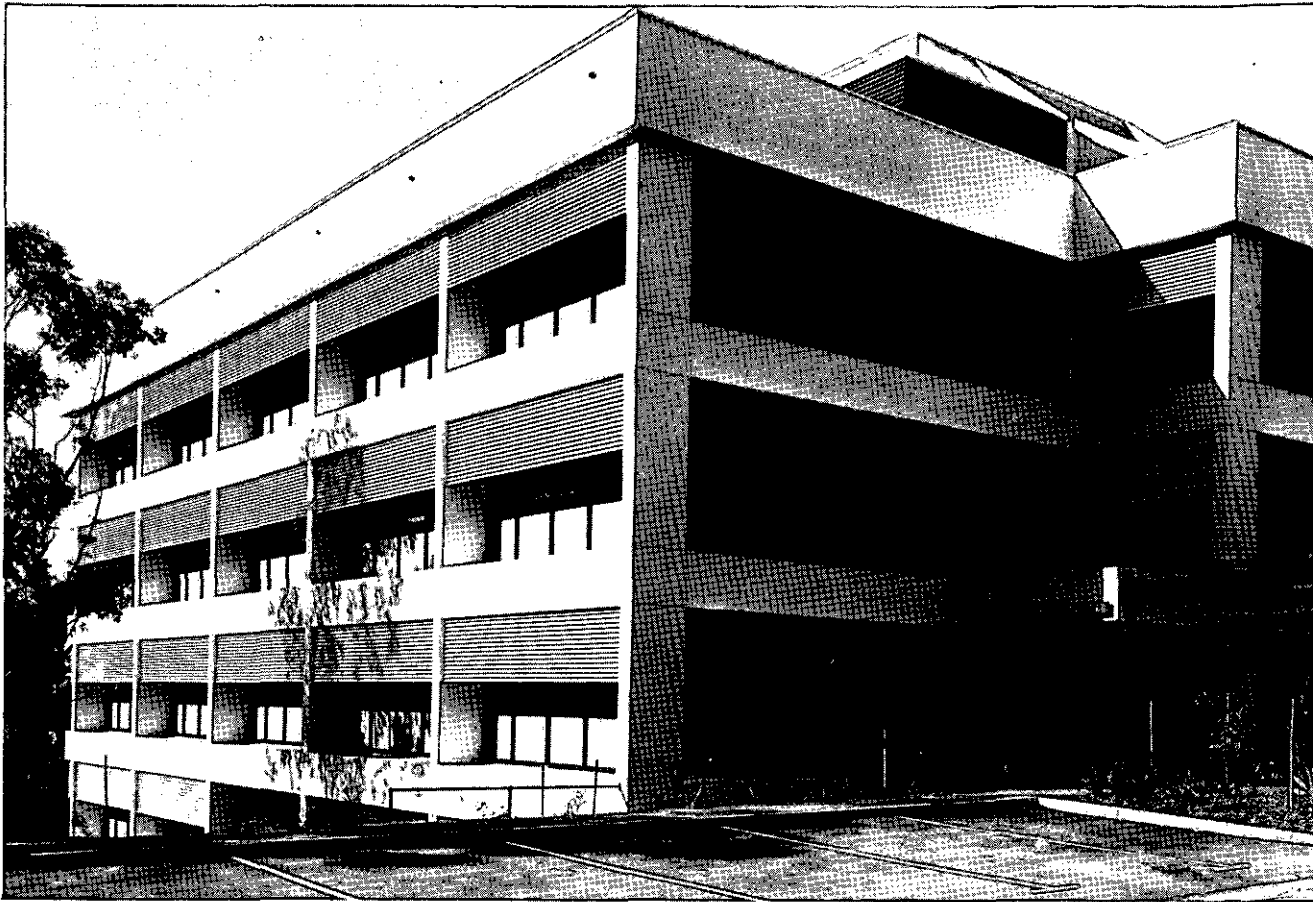
Several long term experimental plots in the rainforest were severely affected by the cyclone. Information derived from these plots should provide correlations between the damage and aspect, slope, soil type, previous logging and treatment. Preliminary field observations indicate that aspect and topography play a major role in determining the degree of damage to the various tree sizes in the stand.

High Technology Sawmills

During the year a new high technology sawmill was opened by Wilco Pty Ltd at Caboolture. This sawmill is one of Australia's most advanced softwood sawmills and has the capacity to process 130 000 cubic metres of plantation pine per



IMPORTANT DEVELOPMENTS



The Department's new Technical Services Building at Indooroopilly, Brisbane, was completed and occupied in May, 1986.

annum. Initially, the mill will operate on a single shift basis converting 67 000 cubic metres of exotic and hoop pine logs per annum. New equipment yet to be installed will allow for fingerjointing, laminated beam and furniture manufacture. The new mill combines traditional skills with the latest in computer and laser technology.

New Technical Services Building

A new building at Indooroopilly, completed at a cost of \$3 800 000, was occupied by the Forest Research and Timber Utilisation Branches of the Division of Technical Services in May 1986. The five level structure now houses the administrative offices, library, conference/ interview rooms, laboratories and cold rooms which were previously accommodated in various locations in Brisbane and Beerwah. Selected timber and plywood panels featuring distinctive Queensland timber species have been used in some of the offices, in the foyer and lift well area and in the conference room. For the first time in many years the Brisbane based sections of Research and Utilisation are housed under one roof, and this will ensure a more efficient work situation.

Information Technology

Computer consultants were engaged to prepare an integrated computing plan consistent with Departmental objectives. Their final report has been presented to the Department. A strategic planning document has been forwarded to the State Government Computer Centre requesting funds in accordance with the direction outlined by the consultants. It is anticipated that 1986/87 will see a major emphasis on the information needs of the Department.

Rainforest Conservation

A report "Rainforest Conservation in Australia" was completed by a Working Group on Rainforest Conservation established by the Commonwealth Government. This report highlights the significance of Queensland's rainforests and their high preservation and conservation status. The report identifies areas of potential co-operation between the States and the Commonwealth in the interests of long term rainforest conservation.

Mr W.H. Glasson — Minister for Lands,
Forestry, Mapping and Surveying.



**Minister for Lands, Forestry, Mapping
and Surveying**

The Honourable W.H. Glasson, M.L.A.

**Departmental Permanent Head and
Accountable Officer Subject to the Minister**

Mr J.A.J. Smart to 9.8.85

Mr J.J. Kelly since 10.8.85

Acts Administered by the Department

Forestry Act 1959–1984

Forestry Regulations of 1960–1985

Sawmills Licensing Act 1936–1979

Sawmills Licensing Regulations of 1965–1985

Timber Users' Protection Act 1949–1972

Timber Users' Protection Regulations of
1950–1960

Diseases in Timber Act 1975

Diseases in Timber Regulations of 1979

Other Significant Responsibilities

Management of the Dongmen Forest Farm
Project in China in connection with the
Australian Development and Assistance
Bureau.

**Statutory Bodies Constituted Under the
Forestry Act and Subject to the Minister**

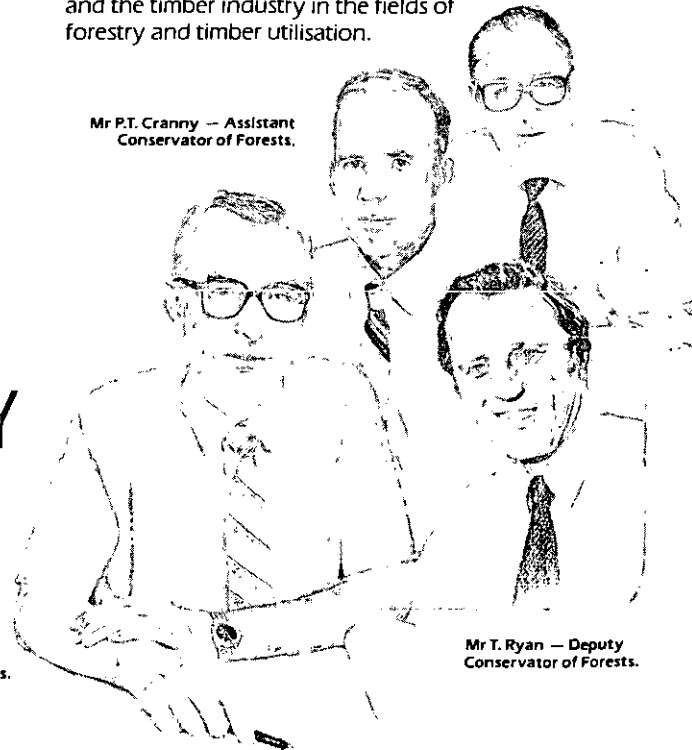
Timber Research and Development Advisory
Council of South and Central Queensland
Timber Research and Development Advisory
Council of North Queensland

**The Department's principal objectives
are to:**

- Develop and manage the State-owned
forests in the best long-term interest of
the general community;
- Manage these forests, including
production forests, so that they best fulfil
their multiple-use role, including
recreation and protection of the
environment;
- Manage production forests to maintain,
as far as practicable, adequate supplies of
timber and other forest products to meet
community needs in the long term;
- Contribute to the development of
effective general land use policies and
practices in the State;
- Promote sound development and stability
in the wood-using industry;
- Undertake research relevant to the needs
of forestry and the wood-using industry;
- Undertake training in forestry and
encourage the development of safe
working practices in the forest;
- Encourage sound timber utilisation
practice in the community, and
- Provide extension advice to the public
and the timber industry in the fields of
forestry and timber utilisation.

Mr F.J. McCaul — Chief
Administration Officer

Mr P.T. Cranney — Assistant
Conservator of Forests.



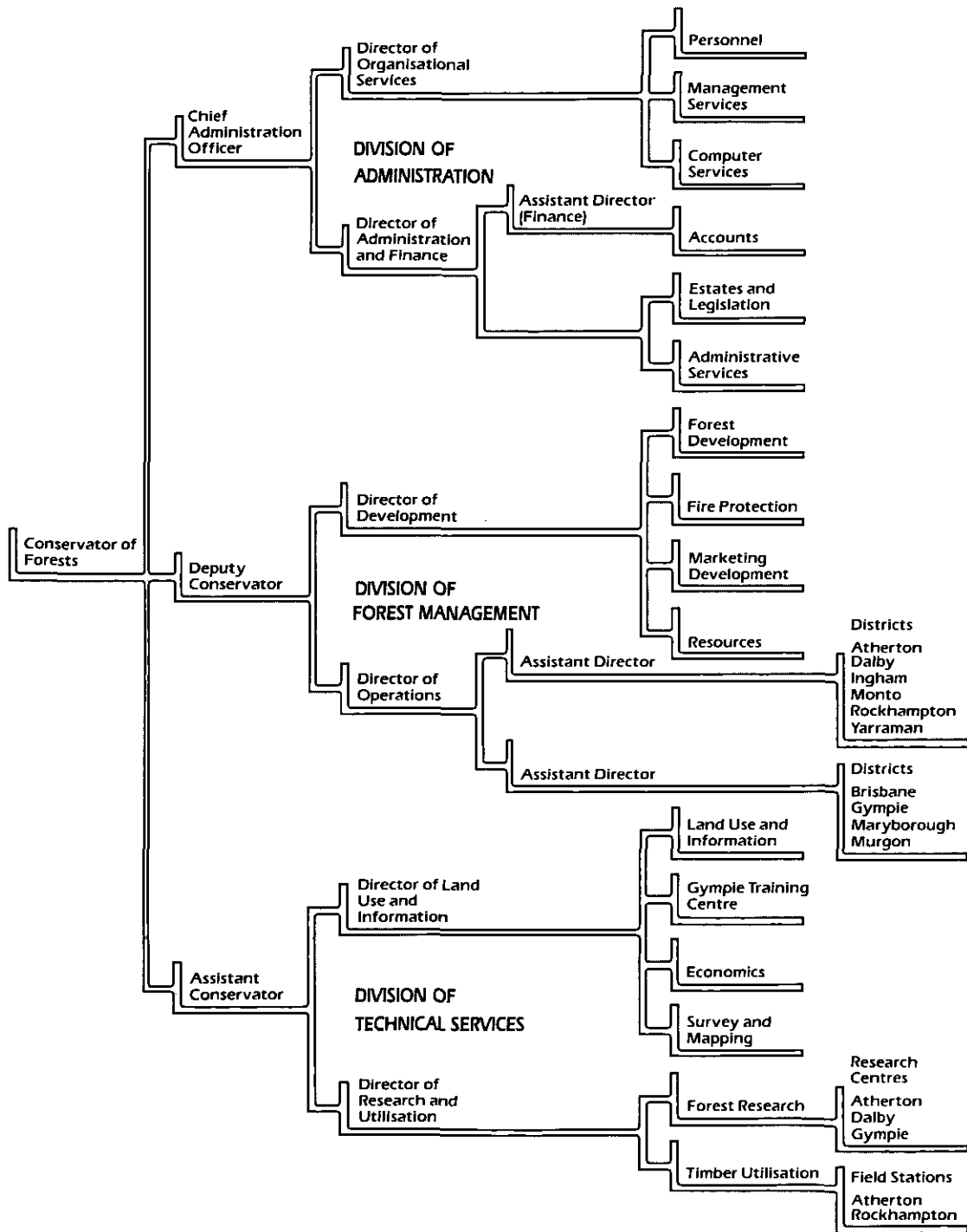
Mr T. Ryan — Deputy
Conservator of Forests.

Mr J.J. Kelly — Conservator of Forests.



THE QUEENSLAND DEPARTMENT OF FORESTRY

Organisational Structure



The principal function of the Division of Technical Services is to provide the Department with a sound technical basis on which forest management can operate, and on which the forest industry as a whole can better serve the State and its people.

In fulfilling this function the Division has established a long record of achievement in its forest research, timber utilisation research and its conservation and environment management.

In evaluating the quality and practicality of research work, the speed with which findings are incorporated into routine management practices and industrial processes is of utmost importance. The priority given to implementation of research results is reflected in the Department's record in this respect.

Extension services to consumers provide a valuable two-way exchange, by assisting the better appreciation and utilisation of wood, and by feedback on the needs of consumers and trends in usage.

The Department is concerned to provide the public with sound information on its management of the community's forest resources, particularly on issues such as the conservation of native forests. Factual information is provided through displays, open days, a variety of brochures, information sheets, tree planting advice and talks to groups and organisations. The ForEd project covering forest education for secondary students is nearly completed and has received high praise for its objective approach and excellent standards.



DIVISION OF TECHNICAL SERVICES

Land Use

In late September 1985, the report of the Working Group on Rainforest Conservation in Australia was released by the Commonwealth Government for public comment.

The Department of Forestry and the Queensland National Parks and Wildlife Service provided the Queensland Government representation on this Working Group.

The subject of rainforests is in some quarters a highly emotional one, and there is a lack of objectivity in many of the calls for complete preservation of rainforest areas, particularly in the wet tropics.

Rainforests in Queensland have been afforded a high conservation status, and the management of rainforests by the Department is conservative and responsible, relying heavily on continuing research and assessment programmes. Together with the National Parks and Wildlife Service, the Department has a long established, balanced rainforest conservation programme.

Responsibility for land management is a State Government function, and the Queensland Government has reiterated its opposition to the nomination of further areas of the State for addition to the World Heritage list on the grounds that listing can be used as a lever to diminish the constitutional powers of the States in areas of land and natural resource management.

A large number of proposals are being received for the conversion of State Forest and Timber Reserve to non-forest land uses. Negotiations have been undertaken with the State Electricity Commission on future sites for pump storage and hydro-electric schemes, and with Lands Department and Main Roads Department on service developments on the new section of the Bruce Highway in the Beerburum area. Other proposals include siting of power transmission lines, telecommunication facilities, and land for pursuits as diverse as grazing, cane growing, aquaculture, tea growing, tourist resorts, camp grounds, and various sporting activities. As these pressures will increase rather than decrease in the future, the investigation of proposals — which must in each case cover relative land use priorities and availability of alternative sites — is expected to become increasingly onerous and time consuming.

Mining and quarrying activities in State Forests and Timber Reserves are an area of concern, particularly where sensitive environmental issues are involved. Close attention is being given to the framing of conditions under which mining and quarrying may proceed, and to the

necessary measures for rehabilitation of these sites.

Continual adherence to guidelines for all forest operations is essential to ensure sound land use and environmental protection.

Land Degradation

The Department regards land degradation as the most serious conservation issue facing landholders.

One approach initiated by the Department recognizes the important role that local authorities can play in helping to overcome this problem.

Following discussions with the Department of Local Government, addresses were delivered to District Local Government Associations throughout Queensland. These addresses dealt with the role of trees in combatting land degradation and were delivered by officers of the National Parks and Wildlife Service, Department of Local Government and the Department of Forestry. Topics covered included historical aspects of land degradation resulting from the loss of tree cover, rural tree decline, and the rural nature conservation programme — initiated by the National Parks and Wildlife Service — which aims to conserve wildlife on rural properties.

The concept of agroforestry zoning as an integrated land use practice in local government planning, is seen as having tremendous potential in addressing the land degradation problem, and in safeguarding rural nature conservation values.

Development of Management Plans

A management planning workshop was held in May 1986 at the Gympie Training Centre in conjunction with academic staff from the University of New England. The aim of the workshop was to assist field staff in the preparation of management plans and to introduce them to additional forest land use planning techniques.

Techniques were presented for assessment of the more intangible forest resource values such as recreation opportunity potential, landscape significance, and nature conservation significance. These inventory procedures provided an essential input into a comprehensive framework for land use planning of forestry lands, which is termed Management Priority Area zoning. Further developmental work in this field is proposed.

Economics

In the year under review the Economics Branch prepared a profile on the

Queensland forestry sector indicating its importance and contribution to State activity.

This study revealed that the sector provides approximately one per cent of the gross value of Queensland's total primary sector output, and between six and seven per cent of the manufacturing sector's contribution to Gross State Product.

From an economic perspective the year 1985/86 divided itself more or less into two parts as far as industry activity levels were concerned. The generally buoyant trading conditions experienced by the building industry in 1984/85 continued in the first half of 1985/86. However subsequent factors including changes in the cost and availability of savings bank finance had a dampening effect on dwelling activity in the second half of the year.

In November the Department hosted the Sixth Conference of Forestry and Forest Products Industries Economists. The theme of the conference was "The Economic Potential of the Australian Forestry and Forest Products Industries Sector". The conference provided a valuable forum for the exchange of views on economic issues of interest to forest growers and wood processors alike.

A major review of the economic environment associated with regional wood production activity was instigated during the year. Initial work has been devoted towards establishing a detailed regional data base with a view to accurately assessing the economic impact and importance of forestry-related activity in rural areas.

Gympie Training Centre

The formal training of 18 fellowship certificate students is continuing. All students have successfully completed Semester 1 and two periods of field training. The second session of field training has emphasised staff management techniques with all students being able to experience the demands of working as acting overseers.

The development of the training and conference complex continues with structural alterations being carried out on the dining room and maintenance building.

There has been increased interest in using the training centre facilities by this Department, other Queensland Government organisations, and private organisations seeking bookings for seminars and conferences.

Survey and Mapping

Computer-aided drafting has been further developed during the period, and seven officers have been trained in relevant techniques.

A pilot study into a Forest Management Information System in Queensland was introduced. The computer-aided drafting software package has proved insufficient for geographic information management systems, and the State Government Computer Centre has arranged for five Departments, including Forestry, to evaluate alternative software packages. This pilot study and the software evaluation are due for completion by the end of 1986.

A total of 4 711 maps to the value of \$17 373 were sold during the year through the Department's offices and marketing arrangements with SUNMAP.

The Department participated in State Map Week 1985 and mounted several map displays in Brisbane and suburban locations.

Low level aerial photography continues to provide extensive mapping information with plantation areas receiving highest priority. Some success has been achieved in identifying Cypress pine using colour infra-red photography, and further research is proceeding. Several low level aerial photography projects were undertaken for other Departments.

Satellite imagery was used to identify areas of damage to rainforest in north Queensland resulting from Cyclone Winifred. A joint project with the Department of Mapping and Surveying was undertaken and classes of damage determined using a computer assisted image analysis method. Field evaluation of the imagery will verify the effectiveness of the method.

Four new property boundary surveys were completed, in addition to the establishment of precise survey control in plantations. A combination theodolite and electronic distance measuring unit was purchased for Maryborough District.

Information Services

Community Extension

The demand for urban and rural tree advice and forest information continues to grow. During the year the Department produced 144 publications which provided information and advice for the public, who continue to seek information on the availability of forest recreational opportunities, particularly in south-east Queensland.

Two of the three segments of the Forest Education Project — ForEd — have now been distributed to all secondary schools throughout Queensland. These are the Manual Arts folder — "Wood Products from the Forest Environment" — and the Science folder — "The Forest Environment". The Manual Arts folder won an award for overall excellence in the Timber Innovation Awards for 1985. This award highlights the degree of co-operation between the Department of Education, Department of Forestry and the Timber Research and Development Advisory Council.

The excellent standard of the ForEd material has drawn high praise from many sources and has resulted in numerous sales. Teachers in Queensland schools have purchased copies for their own use. Other forest services and interstate educational institutions have purchased copies because ForEd is superior to their own productions or the material is just not available. Typical of the many comments received from interstate educational institutions are the following:

"we were greatly impressed by the quality and presentation of this material — material that is needed yet not available"; and "unfortunately our resources are nothing like yours and I am afraid our efforts do not compare well with the quality of the folders I have seen".

Displays

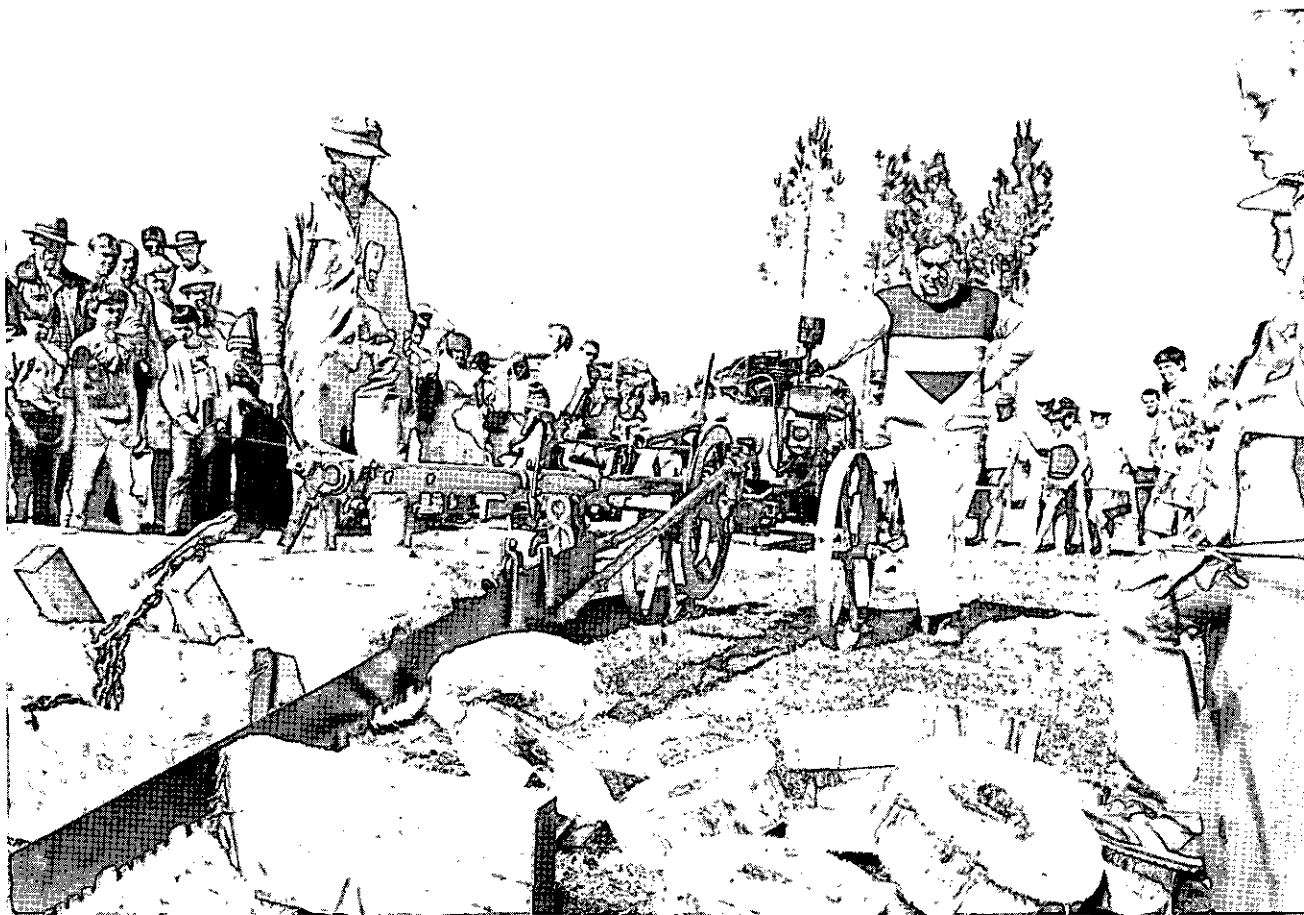
Major public displays were mounted at the Brisbane Royal National Agricultural and Industrial Association Exhibition, which promoted ForEd, and at Queensland Timber Week.

The Timber Week display featured the Department's timber utilisation extension programme. As part of Timber Week, industry displays at the exhibition grounds were promoted in the Brisbane City Mall through demonstrations of wood sculpturing, fashion parades and choral performances. The Mall programme culminated on World Forestry Day, 21 March, with the presentation of a wood play fort to the Lord Mayor of Brisbane by the Minister for Lands, Forestry, Mapping and Surveying, the Honourable W.H. Glasson, M.L.A.

The Department's involvement in urban tree planting and farm forestry was demonstrated by its participation for the first time in large displays at Farmfest Toowoomba, Small Farms Field Day at Beaudesert and the Toowoomba Gardenfest.

Library

Library staff processed 16 990 loans of books and serials. In addition, over 1 300 photocopies of articles were requested



This drag saw that was used in Queensland's forests several decades ago was a popular attraction at the July, 1985 open day held at the Gympie Forestry Complex.

from journal displays and current awareness lists.

The Gympie Branch Library participated in the Open Day held at the Gympie complex with a large display of books on identifying flora and fauna and growing native and exotic plants.

Provision was made for library facilities in the new Technical Services Building at Indooroopilly specialising in resource material for the Forest Research and Timber Utilisation Branches. Six separate collections have been amalgamated to form the basis for the library. Staffing is currently maintained from the central library.

Forest Research

Tree Performance Data Bank

The Tree Performance Data Bank project — TREDAT — was established last year as an important initiative towards finding solutions to a range of land-based environmental problems. This project involves collection and analysis of data on the growth of tree species under a wide variety of situations throughout

Queensland. Sound advice can then be provided on the selection of species and cultural techniques best suited to specific site conditions and purposes. TREDAT is aimed especially at tackling rural tree loss and associated problems such as soil erosion and salination.

The project development phase is now complete. This entailed design of the data collection system in collaboration with CSIRO Division of Forest Research, the establishment of computing facilities, recruitment of staff and the implementation of a publicity campaign.

Data and entry phase commenced in 1985 and will be maintained at a high level for the next 12 months. First output should be available late in 1986 with full scale operation expected approximately one year later. Information will be available free of charge to any person wishing to establish trees.

The data bank is the first of its kind in Australia. Its success to date has been due to a high level of co-operation with CSIRO, Division of Forest Research, and through the participation of a confident and well informed public and organisations who

have planted trees and observed their growth.

TREDAT is a good example of what can be achieved through the co-operation of a wide range of interests prepared to pool expertise and knowledge.

Conondale Range Fauna Study

The Conondale Range Fauna Study is the Department's major zoological research project and involves assessment of the effects of hardwood harvesting on stream and forest fauna.

Failure to locate the gastric brooding frog has meant the stream fauna impact study is now concentrating on the giant spiny lobster, an important component of the stream fauna.

Logging of the treated catchment in the paired catchment fauna study commenced in May 1986. The viability of this major aspect of the study is threatened by the proposed renewal of gold mining operations — in both the control and treated catchments — under pre-existing mining leases which were inactive when the study was initiated.

Some difficulties have been experienced in the capture of marbled frogmouths in a radio telemetry study to estimate population density and home range.

The Department is also studying a large colony of eastern horseshoe bats recently discovered in an abandoned mineshaft within the Conondales.

Hoop Pine Breeding Strategy

The establishment of second generation hoop pine seed orchards is soon to take place. The use of genetically improved seed from the first generation of seed orchards is expected to raise the productivity of newly established hoop pine plantations by an estimated 34 per cent, and considerably improve stem straightness in comparison with older plantings from seed collected from plantations or natural stands.

Since 1984 all seed for hoop pine plantation establishment has been produced from first generation orchards.

An important decision recently taken will result in further improvement in productivity and stem straightness, which will be achieved through a second cycle of seed orchards containing a narrow range of superior families.

These families were crossed with outstanding parent trees selected in the early 1960s at a selection ratio of 1:20 000. Only the very best crosses known as "super families" will be included in the new cycle of seed orchards.

Comparisons from a cross between two parents coded H15 and HG, with the mean of 27 families which are equivalent to

current seed orchard production and seed collected from routine stock in plantations, indicate the likely progressive gains to be made through the adoption of the new hoop pine tree improvement strategy.

Production of High Quality Honduras Caribbean Pine Seed

As in the case of hoop pine, the seed of "super families" of Honduras Caribbean pine can make a substantial contribution to improving plantation productivity. A small crossing programme carried out in 1984 and 1985 is expected to yield 1 kg of seed by 1987. The stock available from this highly valuable seed will be multiplied in a pilot vegetative propagation project based on rooted cuttings.

An expanded crossing programme expected to yield 20 kg of seed in 1988 was initiated this year.

Production of Hybrid Seed

Hybrids of slash and Honduras Caribbean pines are superior to both species on sites subject to periodic waterlogging, but a major problem has been the production of first generation hybrid seed on an operational scale. Research has now resolved most of these difficulties and has identified superior hybrid families producing seed of high viability.

First generation hybrid seed is produced through the artificial pollination of bagged conelets on superior slash pine with pollen from Honduras Caribbean pine. Bagging is necessary to prevent pollen contamination. This pollination technique was used in the Woodford slash pine seed orchard in 1985 and is expected to yield 20 kg of seed sufficient for the establishment of 400 hectares of plantation in 1988.

A cheaper method of production may be the use of seed orchards of slash pine cloned from a single family. These orchards require sufficient isolation to prevent pollen contamination, and this may avoid the expense of bagging the cones. Four such single clone orchards of slash pine were established in 1985 and additional orchards will be established as the best of the hybrid families are identified.

Second generation hybrid seed is much easier to produce and is now available from seed orchards composed of first generation hybrid parents. The second generation hybrid is superior in growth to slash pine on wet sites but is inferior to the first generation hybrid.



Greg Cooper, zoological field assistant, bravely faces a pair of eastern horseshoe bats inside an abandoned mineshaft in the Conondales. The recently discovered colony of bats is under study by the Department.

Timber Utilisation

Wood Chemistry & Preservation

Following the successful development last year of analytical methods for anti-sapstain chemicals, which attracted international interest, wood chemistry and preservation officers have achieved another world first. Precise and practical techniques have been developed for analysis of wood to determine content of two organic compounds being tested in Australia and overseas for use as wood preservatives and anti-sapstain chemicals.

Current measures to control sapstain in plantation grown pine rely on sodium pentachlorophenate. Because of environmental concerns about the future of chlorinated phenols, alternative anti-sapstain chemicals are being evaluated.

Accurate analysis of treated timber for preservative concentration is fundamental to the performance evaluation of preservatives under test.

Major alterations have been completed to the pilot scale vacuum pressure impregnation plant, which was designed

to enable commercial treatment trials to be undertaken. These allow timber to be steamed. Steaming is expected to accelerate the pretreatment seasoning of timber and it may aid in the preservative penetration of heartwood.

The Queensland Sugar Research Institute and the Department are collaborating in trial preservation treatment of sleepers for sugar industry tramways using steam heated industrial fuel oil in a pilot scale open tank. Full sapwood penetration is being achieved and the retention of oil appears encouraging.

Test stakes treated with copper-chrome-arsenic, pentachlorophenol and creosote have been installed in field test sites at Mt Mee in south-east Queensland and Innisfail in north Queensland, to provide baseline standards of performance against which the efficiency of new timber preservatives can be assessed.

In an ongoing programme, a number of clear finishes have been applied to western red cedar, brush box and cypress pine. After twelve months exposure the panels were examined according to nine characteristics. Assessment of results indicates that all the finishes tested show

poor resistance to weathering and none could at this stage be recommended as low maintenance finishes for timber exposed to the weather or to direct sunlight.

Timber Utilisation

A timber cladding trial installed some four years ago continues to provide useful results. It has been found that preservative treated hoop pine has a better appearance than preservative treated exotic pines mainly because it is less resinous. Regular maintenance of unpainted cladding with water repellents reduces distortion.

A large trial using simulated joinery test pieces has been initiated to determine exposed above-ground durability ratings for various local and imported timbers.

Information will also be obtained on:

- the relative durability of painted and unpainted test pieces
- the relationship between timber durability and climate, and
- the relationship with established in-ground durability data.

A trial of species not normally accepted as cane track sleepers has been installed at Bundaberg, Mackay and South Johnstone in collaboration with the Sugar Research Institute. The species involved are poplar gum, Queensland peppermint, white stringy bark and carbeen.

Wood Quality Assessment

Measurement of standard shrinkage values has been developed and data obtained for several Queensland species.

Recent studies have shown that heartwood development in Queensland's major plantation species is much less than in radiata pine. The Queensland species (hoop, slash and Caribbean pine) have wide sapwood, which, unlike heartwood, readily accepts preservative treatment. The following figures are for heartwood as a percentage of cross-sectional area at age 30 — hoop pine 1 per cent, slash and Caribbean pine 3–4 per cent, radiata pine 15 per cent.

Timber Conversion

A large sawmill study was conducted at Yeppoon. The results support previous work indicating that Caribbean pine yields a high proportion of timber grades suitable for general building, and a range of other products with excellent market potential. The wood properties of Caribbean pine, and the smaller branches and knot sizes give Caribbean pine an obvious market advantage.

Timber Seasoning

Further development of a small scale drying facility at the Salisbury experimental mill complex continued. Work on methods of monitoring the moisture content of timber during drying was also continued with full scale industry trials being conducted.

Installation by industry of a solar kiln developed by the Department continued. Thirteen kilns are now in service, including nine in Queensland, with the others interstate and in Papua New Guinea. Two more are under construction in Queensland.

Timber Utilisation Extension

Extension enquiries continue to increase especially from architects, engineers and builders — by 24 per cent, government departments — by 19 per cent and householders — by 18 per cent. These results reflect the success of courses on specifying the correct use of timber conducted for architects and engineers in both the public and private sectors.

A workshop for structural engineers, "Design and Construct in Timber" held at the Gympie Forestry Training Centre, has stimulated considerable activity in using timber for the structural framework in warehouses, churches and public amenity buildings. Courses have been conducted for the Queensland Timber Industry Training Committee on preservation and seasoning, and lectures on basic wood technology have been presented to students in architecture and drafting.

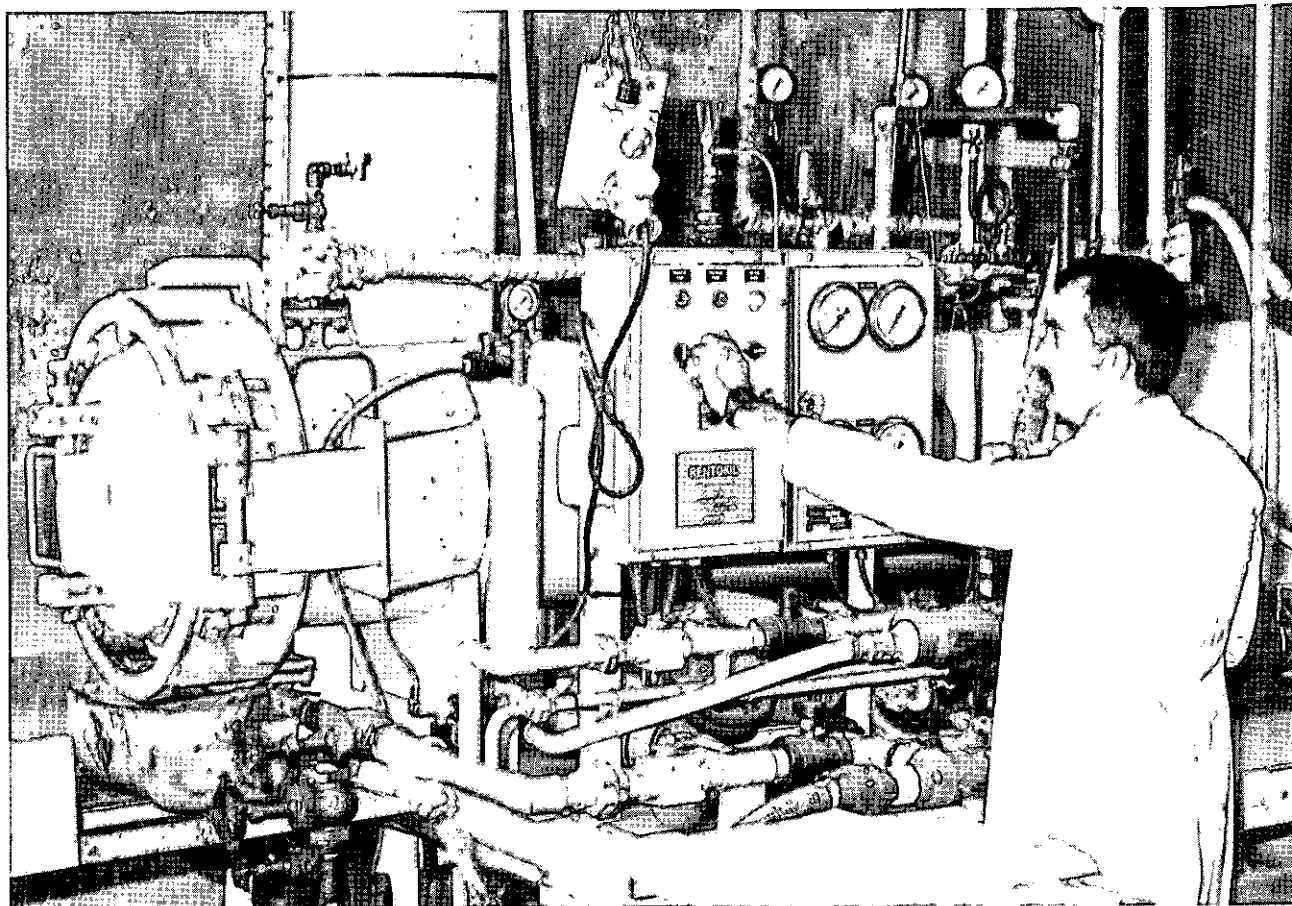
Distribution of timber samples and Timber Utilisation Branch publications increased during the year with approximately 6 000 timber samples prepared and 45 000 Timber Notes printed.

"Educating the Timber User" was the theme of the Departmental display at the Forest Industries Fair. The display featured photographs, timber samples and text emphasising procedures for obtaining good service from timber.

A brochure has been prepared outlining the services available to timber users from the Timber Utilisation Branch.

Timber Users' Protection Act

Thirty-one complaints lodged under the Act were investigated. All cases were successfully resolved without the need for legal action. They can be grouped as follows:



Senior chemist Jack Norton adjusts a vacuum pressure treatment cylinder that can reproduce a wide range of commercial processes in a laboratory situation for evaluation purposes.

	1985/6
Seasoning complaints	3
Preservation complaints	
Lyctus in timber produced in Queensland	0
Lyctus in timber imported from Overseas	8
Lyctus in timber produced in other Australian States	13
Borers, other than Lyctus	7
	<u>31</u>
	Total
	<u>31</u>

This is the lowest number ever recorded and reflects the efforts in producer and user education in Queensland.

West Indian Drywood Termite Eradication Project

The assistance of an advertising campaign brought the number of samples of suspected termite activity submitted under the project to 552 for the year, of which 166 were identified as the local drywood termite. However, 39 cases were confirmed as the West Indian drywood termite; of these, 29 were found in buildings and the remainder in items of furniture.

Seventeen of the 29 building infestations were detected during inspections of over 300 houses adjacent to buildings in which infestations had previously been destroyed by fumigation.

This highlights the need for follow up inspections in localities where the pest has been detected previously, as new colonies which have become established nearby before the parent colony was destroyed are very difficult to detect in their early stages.

The management of forests is the principal function of the Department and the quality of that management is dependent upon the combined technical and administrative competence of the various Divisions.

The Division of Forest Management is directly responsible for the development and implementation of policies related to the growth and sale of forest products, to the multiple use management of the forests, and to the protection of the forest environment. Although the Division has a high profile in the organisation, it remains but one component in the overall corporate structure and the quality of its output is heavily dependent upon the service provided by other Divisions.

The completion of another year in which the Department has been able to once again achieve its major objectives, while at the same time improving overall efficiency in many areas, is testimony to the excellent support which has been provided by the Technical and Administrative Divisions.

The long term direction of forest management in the State was clearly outlined in a two-part document "Forest Management in Queensland" which was published in 1984. For the first time, this document brought together the overriding forest policies on which the development of all Departmental management strategies is based. The ready availability of this publication has been of great assistance in the development and refinement of forest management prescriptions, while at the same time it has assisted field managers to

obtain a greater appreciation of the rationale behind the policies which they are required to implement.

Extension of the strategic planning concept to the regional level was a logical sequel to the development of the state planning document and divisional staff are preparing a variety of management plans at the State Forest group level. The availability of these plans should further improve the efficiency and effectiveness of forest management throughout the State.

Forest Operations

Plantation Establishment

One of the cardinal management objectives of the Department is to ensure the State's net requirements for wood products can be met from its combined Crown and private forest resource. Plantations are established to supplement production from native forests to ensure this objective is reached.

During the year 5 617 hectares of softwood plantations were established consisting of 5 239 hectares of exotic pine and 378 hectares of hoop pine. In addition 84 hectares of exotic pine and 81 hectares of hoop pine were re-established following harvesting of final crop material at the end of the first rotation.

Second rotation plantings have been established as follows:

Year	Exotic Pine(ha)	Hoop Pine (ha)
1981/82	194	
1982/83	358	
1983/84	46	42
1984/85	220	45
1985/86	84	81

Next year it is proposed to plant a further 5 760 hectares consisting of 450 hectares of hoop pine and 5 310 hectares of exotic pine. Major plantings of hoop pine are in the Murgon and Yarraman areas and of exotic pine in the Ingham, Maryborough and Gympie areas.

Plantation establishment consists of:

- **Plantation Design**

Numerous aspects must be considered before a plantation is established. Careful design ensures efficient fire protection by specifying location, type and width of firebreaks. It shows the location of roads and tracks so that cost of access throughout the plantation is kept to a minimum. It delineates areas which will not be cleared and planted, such as frost hollows and steep and rocky sites in hoop pine plantations as well as catchment protection areas, stream protection and filter strips, wildlife corridors and swamps, and areas of special significance for scientific and other purposes.



DIVISION OF FOREST MANAGEMENT

• Site Preparation

Areas are logged of all useful timber before being cleared by machine. Exotic pine areas are ploughed and mounded where drainage problems occur.

• Planting

Trees are planted both by hand and machine. Machine planting is limited by factors of the terrain including rocks and steepness of slope. Hoop pine is planted at a spacing of 5 m x 2.4 m. Exotic pine north of Maryborough is planted at 5 m x 2.7 m and south of Maryborough at a spacing of 4.5 m x 2.4 m. North of Maryborough there is basically only a saw log market, whereas south of Maryborough, demand exists for saw logs, pulpwood and roundwood. The heavier stocking south of Maryborough caters for this market.

• Tending

Tending to control weed competition is carried out at regular intervals until the trees take over control of the site when tending intensity can be reduced. This normally occurs at about year eight with hoop pine. Because of the site preparation in exotic pine areas, tending operations in these areas are less intense. Tending is routinely carried out by use of herbicides but machine tending using a tractor-mounted slasher is common in exotic areas. Rocky and steep terrain limits the use of machinery in tending hoop pine areas.

Native Forest Treatment

Native hardwood and cypress pine forests are managed in accordance with the principle of sustained yield and under a selection logging system aimed at conserving the essential character of the forest.

The most important silvicultural treatment which can be given to such a native forest is the careful selection of stems to be harvested — stems which are mature or overmature, the removal of which will provide growing space and a stimulus to regeneration and residual growing stock. This process of treemarking is undertaken in all but isolated remote areas, or areas of low stocking where cutting of mature stems to a predetermined diameter limit is the most practical approach.

Following logging, native hardwood and cypress pine forests with adequate growth potential may be silviculturally treated to improve growth rate and quality. The treatment entails the removal of useless stems, the stems of non commercial species competing with potentially desirable commercial stems, and the thinning of commercial stems to a given spacing.

Funds available for treatment have been concentrated in cypress pine areas to enable staffing levels to be maintained at minimum levels essential to meet fire protection needs. Cypress pine areas treated in 1985/86 by Sub-Districts were —

	hectares
Dalby	717
Inglewood	1 273
Chinchilla	608
Roma	1 493
Total	<u>4 091</u>

Timber Marketing

The total Crown cut of milling timber and pulpwood was 870 301 cubic metres as compared to 790 862 cubic metres in 1984/85. This increase in volume is partly due to a 95 per cent increase in final crop logging of plantations which yielded 52 304 cubic metres of hoop pine and 107 623 cubic metres of exotic pine.

Total receipts from forest products sales amounted to \$15 948 129 in 1985/86 compared with \$13 182 367 in 1984/85. Receipts from final crop logging amounting to \$5 245 013 have increased by 93 per cent from 1984/85 and so form an ever-increasing part of Departmental income.

Sawmills Licensing

Rationalisation within the timber industry is an ongoing process and has in the past year resulted in a general stabilisation of the number of processing plants.

This has been achieved by a fewer number of amalgamations of sawmill licenses being offset by the issue of new sawmill licenses. Five new licenses were issued to allow sawmillers to process timber being salvaged from land clearing operations, while four were issued to established sleeper cutters who were seeking to improve their operations on private timber supplies.

Currently there are 259 general purpose, 62 restricted license, two sleeper residue and 29 portable mills licensed.

Seed Collection and Sales

This year's Caribbean pine seed collection of over 46 tonnes of cones yielded 823 kg of genetically improved seed.

Cyclone Winifred had only a minor effect on this year's seed crop as collections at Cardwell were all but completed before the onset of the cyclone; and subsequent collections of windblown cones were possible. However the 1987 seed yields are expected to be somewhat lower than this year because of wind damage.

A record collection of 128 kg of Acacia mangium seed was obtained this year, but this was still insufficient to supply overseas orders amounting to 178.5 kg. Overseas interest in this species is increasing with

some countries seeking seed supplies from superior tree sources. Interest is also being shown in other humid tropical acacias such as *A. crassicaarpa*. Initial collections of some of these species are planned for late 1986.

Seed sales both locally and overseas have increased with major sales of Caribbean pine seed to Fiji, Venezuela, Sweden and Vanuatu. Overseas seed sales totalled \$208 618 for 1985/86, an increase of 25.4 per cent over 1984/85. Local sales of seed totalled \$33 930 for 1985/86, an increase of 61.5 per cent over 1984/85.

Seed extraction operations received an added boost with a new cone drying shed at Beerwah and a new seed threshing machine designed to extract seed from hard seed pod species.

Nurseries and Plant Sales

There is increasing demand for amenity species from the Bunya, Salisbury and Dalby nurseries. The demand for trees for forest plot, windbreak, and rehabilitation plantings on approved sites and at concessional rates also increased, mainly in the south-east of the State and on the Atherton Tableland.

Departmental afforestation nurseries successfully raised sufficient good quality planting stock for both summer and winter planting seasons. Higher than normal cull rates were necessary at Toolara nursery to maintain stock quality due to a high incidence of bunched top and multiple leaders. The Beerburrum nursery, with co-operation from the Department of Primary Industries, has successfully raised 250 000 *Leuceana leucocephala* plants for fodder tree planting in the Moreton region.

Nutrition

Hoop pine is planted on relatively fertile soils and nutrient deficiencies are uncommon. On marginal sites some nitrogen deficiency has been identified and further investigations are planned in this area.

Exotic pines are planted in the south-east coastal lowlands of Queensland on often poorly drained infertile soils. Phosphorus is added to these soils by aerial application at the rate of 60 kg elemental phosphorus per hectare. The poorly drained sites receive in addition to phosphorus, 25 kg nitrogen plus 5 kg copper per hectare. Early plantings of Honduras Caribbean pine at Byfield, Cardwell and Kuranda on better soils were not fertilised. However as planting has extended to poorer soils 60 kg phosphorus per hectare is now applied soon after planting. The wetter sites at Cardwell and Kuranda also receive nitrogen, copper, zinc and boron.

Studies are continuing into the effects of refertilising older exotic pine stands. Refertilising has been shown to improve volume increment by over 200 per cent. This year 3 082 hectares have been refertilised at a cost of \$411 000.

Woodworks, The Forestry and Timber Museum

The Museum is located in the Gympie Forestry Complex and is jointly managed by the Department and the Queensland Museum. This popular tourist venue provides education and information to school children and the public.

A blacksmith shop is incorporated in the museum and has been in operation for twelve months. A steam driven sawmill now under construction will be completed by the middle of 1987.

Since its opening in 1984, 30 000 people have visited the museum. These figures include the 8 000 people who attended the Gympie Open Day in July 1985. During the past year, the number of visitors has increased by 33 per cent.

Forest Development

Site Preparation

The compaction by animals of former pasture lands being prepared for planting with exotic pines has presented problems for cultivation, but these have now been substantially overcome by the routine use of a winged ripper drawn by a crawler tractor.

Strip ploughing and high mounding using two passes by a Shearer Majestic plough have been in use for some years. Development work has been carried out on the ploughing and mounding phase of site preparation. Two prototype ploughs which complete the mounding job in a single pass are under trial. The first of these is a plough designed by the Department's engineers, and the second is a heavy duty bedding plough imported from the United States.

A system of surveying all planting sites prior to the commencement of site preparation was introduced to produce site preparation plans based on soil types and topography. These plans ensure that appropriate site preparation is done according to established guidelines, with resultant improved soil conservation.

A heavy duty V blade used in New Zealand for clearing second rotation planting lines after plantation clear felling has been purchased for local trial. In addition, various ploughs,



Forest technician Malcolm Baxter tends young container grown Caribbean pines at the Department's Toolara nursery. The pines are part of a trial aimed at reducing planting costs and increasing the survival potential of plantation species.

pin wheel rakes, and other agricultural equipment on loan or on hire from Australian manufacturers are being trialled in second rotation site preparation.

Weed Control

In hoop pine areas, broadcast sprinkler spraying is being introduced to progressively replace knapsack power misting. The sprinkler sprayer, which uses a low output sprinkler nozzle operating at low pressure, is hand powered and has a low incidence of drift of chemicals to non-target plants. The use of these units lowers the cost of application of agricultural chemicals.

In the Yarraman area, trials indicate that substantial savings can be made by applying full mechanical plantation maintenance with the use of heavy duty flail and rotary slashers.

In exotic pine areas, an 800 litre multi-boom sprayer has been developed for former pasture sites. This unit can simultaneously spray with two different herbicides and obviates the need for two separate operations. Broadacre spraying with this boom will progressively replace tractor misting.

Control of weeds on roadsides and firebreaks is now being done with specially developed low volume roadside sprinkler spray units, designed and built by Departmental staff. Eight units have been built.

Second Rotation Establishment

The annual area of second rotation establishment of both hoop pine and exotic pine plantations is increasing rapidly. Several problems have been identified in this establishment, and trials are current to determine the best technique to overcome each of them. The principal problems are:

- Debris from clearing — in hoop pine areas it is desired to retain the debris for reasons of soil conservation and weed control, but the debris impedes access for planting and tending. Trials have indicated that establishment of a planting lane through the debris may be the best approach.
 - in exotic pine areas a pin wheel rake shows promise for the removal of the heavy material prior to mound or strip ploughing.

- Stumps — these are an obstacle to machine work on exotic pine areas. Approaches being investigated include working over, or around the stumps, and reducing the stump size. Specialised equipment will be required for these techniques.
- Natural regeneration — up to 500 000 plants per hectare of unwanted exotic pine seedlings may occur. Trials are current to overcome this problem.
- Soil compaction from logging equipment — studies are proposed to limit this problem and its effects on future productivity of ramp areas.
- Weeds — control of weeds in second rotation establishment differs from that required for first rotation because of a different weed spectrum, particularly in hoop pine plantations. An extensive trial has been established at Yarraman to assess this further.

Plant and Equipment

Plant purchased during the year included five Caterpillar dozers, two Mitsubishi graders, four Fiat and three Mercedes Benz tractors, two Komatsu loaders and a Case backhoe. Light vehicles and trucks purchased numbered 120. At the Department's Gympie workshop fabrication proceeded on a further three fire tankers based on a Mercedes Benz power unit and chassis. Construction is to the Department's own design and the fire tankers will be used in the protection of the larger plantations.

Development and maintenance of recreation facilities on Fraser Island will be facilitated by the purchase of a Mercedes Benz tractor and 18 large capacity refuse bins through Fraser Island Recreation Board funding for use in garbage collection along the beach.

Construction Works

An experimental carriage was attached to a 30 m high radio tower at Bunyaville in Brisbane. This type of carriage will be used on all of the Department's 31 towers to carry antennae and cable up and down. The installation of this equipment will improve safety and reduce maintenance costs.

Improvement of the road connecting the Tuan Forest Station to the Maryborough — Boonooroo Road is in progress. This road is the main access route to this State Forest for logging and management traffic. The first stage of the programme comprised the resheeting with gravel, and bitumen sealing of a 4.5 km section to a width of 7.4 m.

Buildings with a total floor area of 1 400 square metres were constructed during the year. A large building containing loading gantries was constructed at Toolara to store fire fighting appliances and chemicals. Seed

drying capacity at Beerwah was doubled by the construction of a pine cone storage building featuring improved air circulation.

An experimental greenhouse for the production of hoop and Caribbean pine seedlings was constructed at Toolara, forming part of a plant handling system that includes specialised planting tubes, baskets and carrying pallets. It is anticipated that this system will reduce costs whilst improving quality of planting stock.

The pallet handling system has also been trialled in the transport of open root exotic pine planting stock. Lower costs have resulted and the plants have arrived at the field in better condition for outplanting than was previously the case. The use of this system will be expanded in 1986/87.

Forest Recreation

The demand for recreation facilities provided by the Department has been increasing rapidly. Compared with last year there was an increase of 20 per cent in visitation rates at major State Forest camping areas during Easter 1986.

The location of many State Forests in proximity to population centres and areas of tourist development highlights the potential of State Forests to cater for the recreation needs of both local residents and tourists. The development of the areas for recreation has been undertaken to the limit of funds available for construction and maintenance works.

Plans for the recreation development of State Forests are being prepared on a regional basis. These plans will identify areas of State Forest suitable for recreational development as well as the types of developments which should be considered.

Under the Fraser Island Public Access Act, as from 1 February 1986, visitors to Fraser Island are required to obtain vehicle entry and camping permits. Funds collected through the permit system will be used in the provision of improved facilities and services on the island. A temporary site office and information centre has been established on the beach at Eurong, and a recreation plan for Fraser Island is currently being compiled in conjunction with the National Parks and Wildlife Service.

Community Employment Programme Funds have assisted in providing for improved recreation on State Forests in Brisbane, Beerburrum, Benarkin, Yarraman, Fraser Island, Kenilworth, Ingham and Atherton areas, while the provision of new facilities in the Goomburra, Nanango, Tully and Ingham areas was wholly funded from Departmental sources.



Departmental drawing office aide, Fiona Swain, chats with visitors in a popular horse riding area on a State Forest near Brisbane.

Fire Protection

Fire Occurrence

A mild fire season was recorded in most centres throughout the State, although the season was extended to April in south-east Queensland because of abnormally dry conditions from January to March. Seventy-eight fires costing \$45 320 to suppress were recorded but no extensive damage was sustained to either plantations or native forest.

The worst fire was in a pine plantation at Toolara which was suspected to be either deliberately lit or resulted from a lightning strike. This fire cost \$5 006 to suppress and burnt over 72.6 hectares of plantation without causing significant damage.

Hazard Reduction Burning

A favourable winter burning season allowed reduction of fuel over 120 000 hectares of native forest by aerial ignition. A further 7 600 hectares were burnt by ground crews. Two autumn burns were carried out by aerial ignition in wet sclerophyll forests at Jimna.

Hazard reduction burning was also carried out over approximately 6 200 hectares of exotic pine plantation by aerial ignition, and another 6 672 hectares by hand ignition.

Fire Schools

Two fire schools attended by a total of nine foresters, 18 forest rangers and 36 overseers were held at the Gympie Training Centre. The course covered both lectures and field work in aspects of fire legislation, fire behaviour and equipment, fire protection plans, fire suppression, prescribed burning and research.

Communications

Upgrading of two-way radio installations was carried out at Imbil, Chinchilla, Barakula, Dalby, Gympie and Tuan during the year. Brisbane District was converted to repeater operation with the installation of repeaters at Passchendaele, Gambubal, Mineral House, Mt Tennyson Wood and West Beerburum Lookout.

Boxes for a temporary radio system were installed at Eurong and Dundubara on Fraser Island to aid in the recreation management of Fraser Island.

Forest Resources

Plantations

Revised field inventory data were utilised to provide updated information on thinnings log availability from softwood plantations in the Passchendaele, Pechey, Esk, Gambubal and Cardwell areas.

Calculations aimed at determining the volumes of final crop material available over the next 10-12 years were completed for the Tuan-Toolara, Mary Valley, Murgon, Passchendaele and Pechey-Esk areas. The data for the Tuan-Toolara-Wongi plantations were intensively studied using a number of alternative management regimes in order to determine the volumes which might be available for the establishment of a major wood-using industry in the area, and for possible short term export.

Improved field inventory procedures have been introduced and the new systems are working smoothly. Initial testing of the field use of small electronic hand held data capture devices was carried out. These have great potential for time saving and improved accuracy for the collection of inventory data.

Native Forests

The allowable cut from North Queensland rainforest areas is being progressively reduced to the level which can be sustained on a long term basis from increment following initial logging on areas available for timber production.

The current allowable cut of 130 515 cubic metres per annum was set in 1981 for the four years ending 30 September 1986. During the period 1981-86 the Department has collected additional resource and research data, and further developed its yield analysis techniques. With the use of this upgraded system the allowable cut for the five year period commencing 1 October 1986 has been set at 60 000 cubic metres per annum. A further review of this figure may become necessary following the assessment of the impact of cyclone Winifred on growing stock in the region between Cardwell and Babinda. The large drop in allowable cut is primarily due to completion of initial logging of the Windsor Tableland, the yield from which was made available to the industry between 1978 and 1986 to buffer the transition from earlier high virgin logging yields to the lower level of sustainable yield which will be available from regrowth logging cycles.

A study of cypress pine and western hardwood allocations for the five year period commencing 1 October 1985 confirms that the existing allocations can be sustained.

Native Forest Valuation — Tenure Conversion

The programme of timber valuation on Crown leasehold lands under application for conversion of tenure to freehold continued throughout the year. Seventy new applications were received and the overall programme at 30 June 1986 was:

Applications	Number	Area (hectares)
Awaiting field assessment	41	258 387
Being processed	55	282 161
Withdrawn by applicants	430	1 357 022
Completed	4 092	13 425 188
Total since inception up to 30.6.86	4 618	15 322 758
TOTALS AT 30.6.85	4 548	14 895 714

Systems Development

The plantation yield simulation system has been enhanced, integrated with a sophisticated mathematical programming package, and implemented on the Department's in-house computer. This new system enables detailed long term planning models to be evaluated with greater reliability.

A more sophisticated cypress pine growth model has been produced which not only improves yield forecasting, but also allows district staff to investigate various forest management alternatives.

A rainforest growth model which was developed and used for the review of the allocations of north Queensland rainforest timbers, has enabled more reliable forecasting of yields from this area.



Forest overseer Noel Faulkner (right) and assistant Brian Neylon record slash pine measurements on a hand held data capture device as part of an inventory sampling procedure to gather base standing volume figures and to project yields.

Marketing

New Timber Sales

A number of additional plantation timber parcels were offered for sale during the year. The finalisation of these sales will result in the development of further timber-based industries in the State and in the expansion of established processing plants. The following parcels of plantation timbers were offered for sale:

- Palen Creek — 2 500 cubic metres per year over 18 years
- Passchendaele — 1 600 rising to 4 800 cubic metres per year over 15 years
- Beerburum — 10 000 cubic metres per year over 5 years
- Gympie-Maryborough-Murgon — 440 000 cubic metres per year over 20 years
- Ingham — 56 000 cubic metres cyclone salvage.

Pricing

Action to simplify the relatively complex log timber pricing systems was continued through reviews covering such areas as sample selling, round softwood timber pricing, south Queensland scrubwood pricing, and girder marketing policy. The mechanism used for adjusting log prices following changes in logging costs was also reviewed, and discussions have been initiated with industry groups aimed at determining a satisfactory revised procedure.

Crown log royalty and stumpage price increases ranging from 3.4 per cent to 5.3 per cent were applied from 1 July 1985.

The Division of Administration provides administrative services to Divisions and Districts within the Department.

The year under review was a difficult one in many respects. Senior staff in the Division have concentrated on delivering policy statements in a number of administrative areas and in preparation of legislation. The tight deadlines imposed have resulted in managers concentrating on urgent and important matters. Subordinate staff have met the challenge to manage functions and keep the day to day work flowing.

Due to the pressures on staff and the Government policy of zero growth, other avenues of delivery have been investigated, including computerising of functions previously handled manually to increase efficiency and provide a better service.

Microcomputers were installed in twelve Sub-Districts during the year, and it is intended to provide the remaining Sub-Districts with similar equipment in the 1986/87 financial year for development of systems.

A personal development package, "New Age Thinking", was purchased and all Departmental staff are being encouraged to participate in this training to enhance both individual and group development.

The high staff turnover of previous years was again evident in the computer area where the Department lost a number of experienced officers to other Departments. The inability of the Department to hold computer professionals is a reflection of the classification structure currently in place.



DIVISION OF ADMINISTRATION

Accounts

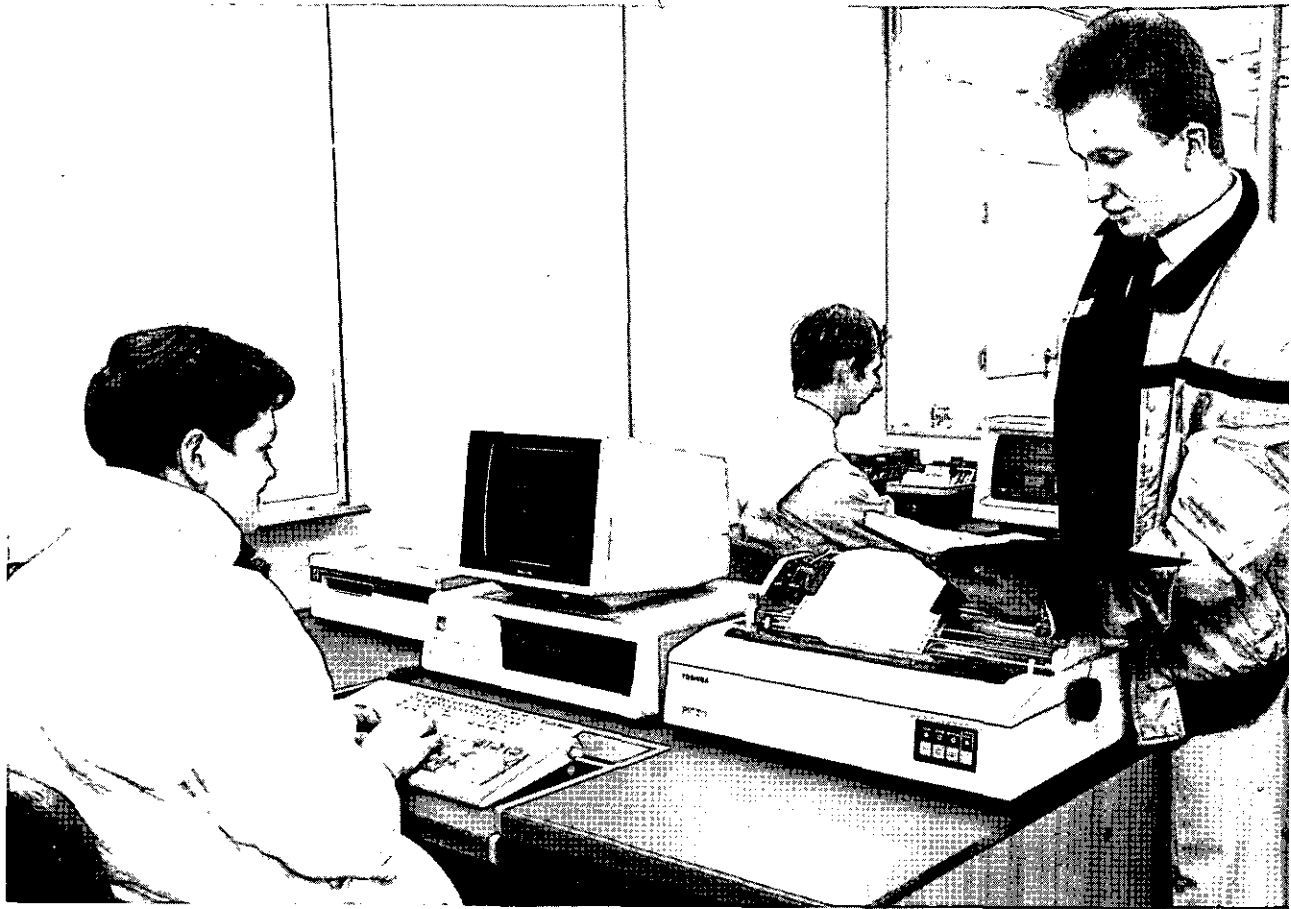
The Branch continued to upgrade and computerise the Department's accounting functions.

Development and implementation of new systems is progressing together with the upgrading and enhancement of existing systems. Accomplishments in these spheres during the year include:

- A computerised wages payroll system was implemented in six Sub-District centres. Testing and modification of the system-delivered software was completed satisfactorily and intensive training has been conducted prior to implementation in these centres. The operation of the system encompassing the payments to the Department's 1 100 wages employees has resulted in significant staff efficiencies through automation of tasks previously performed manually. It is intended to finalise conversion of the remaining Sub-Districts in 1986/87.
- Enhancement of the Department's computerised expenditure accounting system has continued. New releases of system software were installed, and have improved the operational efficiency and reporting capabilities of the system.
- Development work has been carried out on the computerisation of the receipting system for implementation from the commencement of the 1986/87 financial year. This system will provide the Department with improved classification of moneys received and facilitate the use of trend analysis techniques.
- The Department's financial reporting systems are being further enhanced by use of a microcomputer and package software. The results have led to management reports being produced in a more timely and efficient manner. Future benefits are expected through the use of forecasting and modelling techniques available in the installed software.

Computerisation of accounting functions has resulted in significant changes to the staff structure and work content for Branch personnel.

Projects undertaken during the year have advanced the Department towards its goal of updating its accounting functions and providing managers with accurate and timely financial budgetary reports.



Data preparation supervisor, Janelle Long (left), and computer systems officer, Chris Wobcke, discuss the operation of one of the Department's new IBM microcomputers.

Administrative Services

Accommodation

The Works Department has completed plans for extensions to the Beerburum Sub-District Office, and planning is proceeding for the construction of a new Sub-District Office at Blackbutt for the Benarkin Sub-District. These projects are scheduled to commence in the 1986/87 financial year for occupation in 1987.

In May 1986, the Bundaberg Sub-District Office was moved from rented accommodation into the new State Government building constructed in the central city, and in June 1986 the Brisbane District Office was relocated from Ryan House in Upper Roma Street to Mawarra House, 50-60 Albert Street, Brisbane.

On 29 July 1985 the Honourable W.H. Glasson, M.L.A., Minister for Lands, Forestry, Mapping and Surveying opened the new Chinchilla Office which replaced the existing Sub-District Office on the Barakula State Forest.

Advice has been received that the Department's Head Office will be moved

from Mineral House to a new building to be constructed on the site of the old Bretts Building in Mary Street, Brisbane. The transfer is expected to take place in late 1987.

Typing Services

With an improved and expanded word processing system now firmly established, efficiency in the typing area has increased significantly. As staff become more proficient in the use of this equipment, additional work will be processed.

Purchasing Section

The State Stores Board programme to make all contract information available to Departments through a computer-based system has been finalised. Contract information can now be accessed through an on-line terminal and microfiche readers in Stores Section in Brisbane, and through microfiche readers in Sub-District offices and mechanical workshops.

It is too early to provide comment on the final effect of the change to this system because full training of purchasing officers has yet to be completed.

During the year Stores Section processed the following documents for supply of goods and services:

- 7 300 requisitions placed for orders to be issued
- 8 600 orders issued on firms for supply (1984-85 — 9400 orders)
- 500 stock issue notes processed for supply of items held in stock at Salisbury bulk store

A decrease in the number of orders issued compared with the previous year reflects the Department's policy of allowing mechanical workshops to order their own replacement parts direct from the suppliers. This policy has greatly reduced down time of equipment under repair.

During the year 80 actions were referred to State Stores Board for call of quotations or tenders for specific items to meet the Department's requirements. Stores Section was represented on State Stores Board Committees to evaluate office equipment for use by Government-wide services. These evaluations included typewriters, photocopiers and calculators.

Forest Estate

At 30 June 1986, State Forest and Timber Reserves in Queensland totalled 4 482 789 hectares, a net increase for the year of 6 444 hectares.

The revocation of some 1 231 hectares of land from existing State Forests was sanctioned by Parliament.

Investigations

During the year field officers reported 65 breaches of the Forestry Act and four breaches of the Sawmills Licensing Act. Investigations and processing of these and earlier reports resulted in 21 convictions and fines of \$4 900. An amount of \$24 517 was received by the Department as a result of demands issued for recovery of royalty and investigation costs.

During the past few years efforts have been made to improve the processing of reported breaches of the Act. The backlog has been largely overcome and the processing of current actions is proceeding satisfactorily.

In line with the emphasis being given to better administration of actions associated with breaches of the Acts controlled by the Department, a five day workshop was held at the Gympie Training Centre from 29 July 1985. District marketing officers and rangers participated.

The objective of the workshop was to give officers a better understanding of their role in ensuring compliance with the provisions

of the statutes and to improve their skill and confidence in addressing this complex and demanding task.

Topics covered included identification of the element of an offence, collection and presentation of evidence, interviewing techniques, court procedures and policy.

Officers who participated are now better aware of their powers and responsibilities in dealing with offenders and more able to identify and document significant evidence.

Legislation

Significant pressure was placed on the resources of the Estates and Legislation Branch during the year when senior officers were required to devote a large proportion of their time to the drafting and implementation — in conjunction with officers of the National Parks and Wildlife Service — of the Fraser Island Public Access Act and its subordinate legislation.

This task involved the formulation and documentation of administrative procedures to implement legislation and the training of authorised officers responsible for issuing permits.

While efforts made were largely instrumental in the deadline for the introduction of this legislation being met, this was not achieved without some detriment to the current work of the Branch.

Priority is being given to the finalisation of the review of the Timber User's Protection Act. Preparation of a revised Bill is well advanced and it is anticipated that the Department will be in a position to submit the legislation to Parliament towards the end of 1986.

The acceptance by Government of the recommendations contained in the first report of the Committee of Review of Business Regulations, and the passage through Parliament of the Regulatory Reform Act, require the Department to review all regulations under its administration within nominated deadlines.

The Act requires that regulations made under the Forestry Act and the Timber User's Protection Act be reviewed prior to 30 June 1987 and the Sawmills Licensing Act by 30 June 1988.

The Committee has specified that the review process include consultation and negotiation with industry. While preliminary action has been initiated, finalisation of the review within the appointed time will require concentrated effort.



Forest recreation officer, Chris Phillips, checks a Fraser Island visitor's permit. The issue of permits to control usage of the island began in early 1986, following passage of the Fraser Island Public Access Act in 1985.

Management Services

Over the past year, Management Services has been active in a wide range of consulting projects and activities to enhance the effectiveness of the organisation and its staff.

Projects, which to varying degrees focussed on team development, the review of organisation and structure, and the development of management and operating systems, were carried out in conjunction with staff in the following areas:

- Division of Technical Services — Research & Utilisation
- Communications Centre
- Land Use and Information Branch
- Computer Services Branch
- Administrative Services Branch
- Division of Forest Management — Operations
- Gympie District

In the area of personnel development, Management Services has catered

comprehensively for the needs of staff at all levels by offering and delivering a wider range of courses. These include courses on effective written communication, time management, interviewing skills, public speaking, introductory and advanced supervisor development, training skills, dealing with the public and interpersonal effectiveness. A major initiative was the purchase of a personal development programme entitled "New Age Thinking". This is a video-based programme aimed at the development of individual and organisational potential and is being widely utilised throughout the Department.

Personnel

Microcomputing facilities and a software package for a wages staff personnel information system were installed in a further 12 Sub-District Offices during the year. The system is now operating in 13 Sub-District Offices, namely Brisbane, Beerburrum, Warwick, Chinchilla, Inglewood, Roma, Gympie, Imbil, Maryborough, Tuan, Bundaberg, Benarkin and Yarraman. Installations

in the remaining Sub-District Offices are planned for the 1986/87 financial year.

The introduction of the staff development and review scheme was progressively extended throughout the Department. A number of staff groups are now involved in the scheme.

The year also saw the issue of the first instalment of a personnel policy manual for wages staff. The manual is intended to be comprehensive and further instalments are proposed.

Salaried staff establishment increased by one position to 646 at the end of the year. At 30 June 1986 1 143 wages staff were employed compared with 1 238 at the end of the previous year.

Fifty-eight salaried officers left the Department during the year including 18 officers who transferred to other Departments and nine officers who retired after long and meritorious service.

Overseas Visits

Mr T.N. Johnston — Manager, Forest Research Branch now Manager, Marketing Development Branch, **Dr G.J. Bacon** — Marketing Projects Officer, now Manager, Forest Research Branch and **Dr B.N. Brown** — Senior Pathologist all visited the United States of America from 2 to 10 August 1985 to attend the International Symposium on Nursery Management Practices for the Southern Pines at Montgomery, Alabama. Mr Johnston also undertook a post-symposium tour of major nurseries and forest management operations in the Alabama region which extended his visit to 18 August 1985.

Dr D.G. Nikles — Officer-in-Charge Tree Breeding, Forest Research Branch visited Thailand from 3 to 11 August 1985 as joint leader of a technical workshop on tree breeding at the request of the Australian Development Assistance Bureau. He also visited Fiji from 24 November to 6 December 1985 to provide follow up consultative services to the Fiji Forest Department in tree breeding.

Mr J.J. Kelly — Conservator of Forests, visited North America and Chile from 7 September to 5 October 1985 to attend the 12th Commonwealth Forestry Conference at Victoria, British Columbia and a post-conference tour to Washington D.C., the south-eastern States of the United States of America and Chile.

Mr R.W. Chester-Master — Forester Division I, visited Saudi Arabia from 19 October to 22 November 1985 as a member of a four man team of Australian experts to provide advice at the request of the Saudi Arabian Government on a suitable programme for reforestation of Saudi Arabia's National Parks.

Mr P.A. Ryan — Senior Forester visited Africa and Asia from 4 January to 7 March 1986 to study planting of Australian hardwoods in these countries as part of the Australian Centre for International Agricultural Research fuelwoods programme.

Dr L.E. Leightley — Officer-in-Charge, Wood Chemistry and Preservation Section, Timber Utilisation Branch visited Europe from 23 May to 13 June 1986 to attend meetings on wood preservation in France, Belgium, Denmark and the United Kingdom.

Mr P.S. Rolek — Manager, Economics Branch visited New Zealand from 18 May to 8 June 1986 under the New Zealand — Australia Forest Officer Exchange Scheme.

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. Fifty-three staff members undertook part-time educational courses during the year, including eleven staff who successfully completed higher level courses.

Continuing use of employee counselling services occurred during the year.

Industrial and Safety

The Senior Personnel Officer Industrial, and the Safety Officer continued their programme of visiting districts for inspections and discussions with staff. No significant problems were encountered. These visits assist in identifying potential problems and in maintaining effective and amicable working relationships with field staff.

Industrial relations training courses were held at Maryborough and Gympie. They were of benefit to both the participants and the staff who designed and presented the course.

Improvements were made to remuneration and conditions including:

- provisions for employees using extended pole saws for pruning
- compensation for officers performing additional duties during the fire season.

A sub-committee has been established by the Standards Association of Australia for the development of a standard for leg protection for chainsaw operators. The Safety Officer is the Department's representative on the sub-committee.



Forestry Minister Bill Glasson (centre, with chainsaw) opened the July, 1985 Australian Forest Departments Safety Personnel Conference — the first to be held in Brisbane. The conference was chaired by safety officer Barry Paterson (to Mr Glasson's left), and attended by Conservator of Forests, John Kelly (between Mr Glasson and Mr Paterson).

Computer Services

During the year an international firm of computer consultants was engaged to review the total computing activities of all Divisions of the Department and to produce a long-term computer development plan. Recommendations presented in the plan covered management and staffing of the computing function as well as a detailed timetable for the development of major computer systems considered to have sound economic justification. These recommendations have been included in the Department's Computing Strategic Plan which is submitted annually to the State Government Computer Centre.

Major hardware acquisitions for the year have included:

- IBM microcomputers for the continuing programme to provide computer facilities in Sub-district offices
- a major upgrade to the Department's VAX 750 computer to cater for increased computer usage from staff in the Gympie and Indooroopilly complexes

- a new UNIX-Based computer in Mineral House to cater for increased computer usage.

The programme of maintenance of existing computer systems is continuing, but is becoming an ever-increasing portion of the Branch's work-load.

Branch staff have regularly attended training courses during the year. These courses have included staff development courses as well as numerous technical computing courses chosen to ensure Branch staff become familiar with rapid developments in computer technology.

Extensive assistance has been provided to the Division of Forest Management. Projects included the development of improved inventory management systems in both plantations and native forests.

Software to store and retrieve data relating to experimental plots was completed for the Division of Technical Services.

An information centre has been established to provide training and advice to Departmental staff, which includes a help desk where staff, particularly those outside Brisbane, can obtain answers to operational computer problems.

General

The Department's financial statements are prepared by the Conservator of Forests and certification of them by the Auditor-General is in accordance with section 37(3) of the Financial Administration and Audit Act 1977-1985.

These statements are prepared in terms of prescribed legislative requirements and are in accordance with Government accounting principles and practices.

Basis of Accounting

Gross Cash Basis

Receipts and expenditure are recorded on a cash basis, that is receipts and expenditure are shown on the basis of cash received and payments made in the financial year. Cash accounting is on a gross basis, that is receipts and expenditure are not offset.

Materiality

Explanatory notes are given on matters which, in the judgement of the Conservator of Forests, are of significance in the context of accountability, adequate disclosure and meaningful reporting.

Under the cash basis of financial reporting, capital expenditure is treated as a charge in the year of payment.

Legislation provides for the establishment and maintenance of Departmental asset registers and requires material losses and deficiencies to be disclosed.

Funds

In accordance with the requirements of the Constitution Act of 1867 and Financial Administration and Audit Act 1977-1985, financial transactions are recorded in three funds, the Consolidated Revenue Fund, the Loan Fund and the Trust and Special Funds. The purposes for which these funds are used are explained hereunder.

Consolidated Revenue Fund

This fund is used for the purpose of recording transactions in connection with the payment of salaries and related costs, administrative expenditure and the maintenance of Recreation Facilities established by the Department.

Loan Fund

This fund is used for the purpose of recording transactions in connection with the construction of Recreation Facilities and for recording State loan borrowings used to finance the Department's Capital Works Programme as recorded in the Forestry Development Fund.

Forestry and Lumbering Fund

This fund is established for the purpose of recording revenue from the sale of forest products and expenditure in connection with the harvesting and sale of such products and the maintenance of Departmental assets. In addition transactions relating to interest and redemption on loan borrowings, maintenance of plant, the Timber Research and Development Advisory Council and other Departmental Special Projects are recorded in this fund.

Forestry Development Fund

This fund is established for the purpose of recording transactions in connection with the Department's Capital Works Programme which provides for the management and development of State Forests and includes expenditure on the purchase and construction of assets and plant.



FINANCIAL REPORTING AND APPENDICES

APPENDIX 1

Comparative Statement of Receipts for the Years 1984-85 and 1985-86

Receipts Previous Year	Note Ref. No.	Particulars of Receipts	Estimate	Receipts	Receipts compared with Estimate	
					Greater	Less
\$			\$	\$	\$	\$
		CONSOLIDATED REVENUE FUND				
		Receipts for Goods/Services —				
66 549		Plan Printing Service	70 000	58 167		11 833
		Miscellaneous and Recoveries —				
86 572		Expenditure Recovered	138 000	136 273		1 727
10 300		Sales of Government Property	25 000	24 350		650
2 715		Other	1 000	660		340
166 136		Total — Consolidated Revenue Fund	234 000	219 450		14 550
		LOAN FUND				
		Miscellaneous Receipts and Recoveries				
245		Commonwealth Payments —	—	—		
169 428	1	Community Employment Programme	25 875	245 105	219 230	
169 673		Total — Loan Fund	25 875	245 105	219 230	
		FORESTRY AND LUMBERING FUND				
		Territorial —				
13 182 367	2	Forest Products Receipts	15 453 000	15 948 129	495 129	
536 463		Freeholding of Grazing Selections	440 000	576 399	136 399	
1 885 453		Contract Timber Supplies	2 000 000	2 016 352	16 352	
288 558		Land Rentals	101 540	145 742	44 202	
		Receipts for Goods/Services —				
561 115		Plants and Seeds	528 000	594 613	66 613	
		Miscellaneous and Recoveries —				
6 228 501		Plant Hire Receipts	7 200 000	7 319 169	119 169	
360 961		T.R.A.D.A.C.	360 000	335 261		24 739
29 000		Vegetative Propagation Project	40 650	40 650		
202 987		Newsprint Trial	—	—		
296 940		Other	463 460	406 525		56 935
		Commonwealth Payments —				
630 848		Dongmen Project, Peoples Republic of China	566 000	560 800		5 200
103 750		Gympie Fuelwood Project	74 200	89 050	14 850	
65 206	3	Natural Disaster Relief	7 673	133 657	125 984	
7 725		Community Employment Program	1 470	28 430	26 960	
24 379 874		Total — Forestry and Lumbering Fund	27 235 993	28 194 777	1 045 658	86 874
		FORESTRY DEVELOPMENT FUND				
		Miscellaneous and Recoveries —				
568 188	4	Sale of Vehicles and Plant	700 000	1 090 621	390 621	
—		Other	271 900	246 900		25 000
		Financing Receipts —				
		Repayable Advances —				
		Special Project Fund	5 400 000	5 400 000		
		Repayable Advances —				
		Loan Fund	21 152 000	21 077 000		75 000
21 766 000		Plant Account	1 967 000	1 967 000		
1 296 062		Commonwealth Payments —				
25 021		Diesel Fuel Rebate	—	31 997	31 997	
—	3	Natural Disaster Relief	—	30 406	30 406	
203 074	1	Community Employment Programme	5 103	120 862	115 759	
27 858 345		Total — Forestry Development Fund	29 496 003	29 964 786	568 783	100 000

Note 1: Receipts have exceeded estimate due to additional Community Employment Program Grants being received during the year resulting from further projects being approved.

Note 2: Receipts have exceeded those of the previous year due to increased activity in the harvesting of final crop plantation timbers and to the effect of an increase of 5.3% in stumpage charges from 1 July 1985

Note 3: Receipts have exceeded estimate due to proceeds being received for restoration costs in relation to damage caused by Cyclone "Winifred" in February 1986 which were not included in the original estimate.

Note 4: Receipts have exceeded estimate due to:—

(a) higher prices being received for vehicles and plant sold.

(b) higher numbers of sales resulting from a greater number of items being replaced than anticipated.

APPENDIX 2 Departmental Appropriation Account for 1985-86

1984/85 Expenditure	Note Ref. No.	Headings of Expenditure	Appropriations	Transfers	Appropriations as adjusted by Transfers	Total Expenditure	Unforeseen Expenditure— Amount to be Appropriated	Lapsed Appropriations
\$			\$	\$	\$	\$	\$	\$
		CONSOLIDATED REVENUE FUND						
		Supply Services and Unforeseen Expenditure —						
		Department of Forestry —						
14 348 588		Salaries	14 818 000	—	14 818 000	15 262 220	444 221	—
26 974	1	Termite Eradication	40 000	—	40 000	71 608	31 609	—
219 411		Printing and Stores	230 500	—	230 500	222 475	—	8 025
3 944 710		Allowances and Incidentals	4 331 200	—	4 331 200	4 511 215	180 016	—
		Recreation Facilities —						
513 807		Maintenance	510 000	—	510 000	543 693	33 693	—
129 187	2	Cash Equivalent of Long Service Leave	346 000	—	346 000	296 227	—	49 773
		Total — Consolidated Revenue Fund	20 275 700	—	20 275 700	20 907 438	689 539	57 798
		LOAN FUND						
		Forestry —						
496 063	3	Recreation Facilities — Construction	373 875	+ 75 000	448 875	693 626	244 751	—
21 766 000		Amount to be credited to Forestry Development Fund	21 152 000	- 75 000	21 077 000	21 077 000	—	—
		Total — Loan Fund	21 525 875	—	21 525 875	21 770 626	244 751	—
		FORESTRY AND LUMBERING FUND						
7 822 318		Interest and Redemption on Loans	8 609 020	—	8 609 020	9 203 020	594 000	—
1 425 864		Contract Timber Supplies	1 855 000	—	1 855 000	1 796 891	—	58 109
4 433 783		Marketing	4 737 000	—	4 737 000	4 833 818	96 818	—
4 952 278		Maintenance of Plant	5 233 000	—	5 233 000	5 312 430	79 430	—
		Maintenance of Capital						
2 993 503		Improvements	3 300 000	+ 60 000	3 360 000	3 522 037	162 038	—
219 978	4	Timber Utilisation	319 000	- 60 000	259 000	258 276	—	724
630 623		Dongmen Project	566 404	—	566 404	560 461	—	5 943
356 648		Amounts transferred to TRADAC	502 597	—	502 597	477 857	—	24 740
220 571		Newsprint Trial	—	—	—	—	—	—
95 758		Gympie Fuelwood Project	87 566	—	87 566	94 711	7 146	—
		Transfer to Plant Account —						
1 296 062		Forestry Development Fund	1 967 000	—	1 967 000	1 967 000	—	—
5 523		Vegetative Propagation Project	64 127	—	64 127	50 246	—	13 881
		Total — Forestry and Lumbering Fund	27 240 714	—	27 240 714	28 076 747	939 432	103 397
		FORESTRY DEVELOPMENT FUND						
20 113 406		Reforestation	21 779 883	—	21 779 883	21 885 880	105 997	—
31 283		Land Acquisition	500 000	—	500 000	431 595	—	68 405
2 599 991		Purchase of Plant	3 300 000	—	3 300 000	3 299 999	—	1
		Construction of Capital						
2 631 448		Improvements	2 400 000	+ 44 000	2 444 000	2 474 353	30 354	—
759 830		Forest Research	823 000	- 44 000	779 000	770 999	—	8 001
		Total — Forestry Development Fund	28 802 883	—	28 802 883	28 862 826	136 351	76 407
		Total — Trust and Special Funds						
50 588 867			56 043 597	—	56 043 597	56 939 573	1 075 783	179 804
92 033 607		TOTAL — ALL FUNDS	97 845 172	—	97 845 172	99 617 637	2 010 073	237 602

NOTES BY ACCOUNTABLE OFFICER

Note 1: The initial allocation proved insufficient after the results of surveys indicated the number of buildings requiring treatment was greater than first envisaged. It was essential that these infestations be treated to control the spread of the West Indian Drywood termite.

Note 2: The initial appropriation was based on knowledge of anticipated resignations. However some officers who signified an intention to retire during the year have now deferred such action.

Note 3: Additional expenditure was incurred due to work being undertaken on approved Community Employment Program Projects to upgrade recreation facilities on State Forests.

Note 4: A saving of approximately \$60 000 was realized due to the deferring of a timber pulping trial.

APPENDIX 2 — continued
Statement of other Financial Information 1985–86

LOSSES OR DEFICIENCIES —	Cases	Losses \$	Recoveries \$
Public moneys or other moneys due to —			
Stealing or other offence	3	1 367	—
Foregone assessment of collections	1	98 147	—
Debts written off	8	8 799	—
TOTAL —		108 313	NIL
Public property or other property due to —			
Stealing or other offence	23	3 154	13
Stores — No evidence of theft or fraud	19	2 926	100
		6 080	113
TOTAL —		114 393	113

Note by Accountable Officer

The amount written off under the heading of "foregone assessment of collections" relates to an incorrect assessment of royalty payable by Sawmillers on the sale of Crown Timber in North Queensland. Investigation of the circumstances surrounding the loss has revealed that the loss is not recoverable. Procedures are now in place to ensure that there is no recurrence of losses of this nature.

UNEXPENDED ADVANCES TO AGENCY DEPARTMENTS —

Moneys held unexpended in the Department of Mapping and Surveying Special Standing Fund as at June 30, 1986 for the purpose of providing surveying services to the Estates and Legislation Branch of this Department amounted to

\$13 000

LOAN INDEBTEDNESS

\$328 822 963

Certificates in relation to statements contained in Appendix 2

CERTIFICATE OF THE DEPARTMENT OF FORESTRY

We have prepared the foregoing statements of the accounts subsidiary to the public accounts pursuant to section 37 of the Financial Administration and Audit Act 1977–1985 and certify that—

- (a) the foregoing financial statements with other financial information and notes forming part thereof 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 —
- (i) the prescribed requirements in respect of the establishment and keeping of accounts have been complied with in all material respects;
 - (ii) expenditure has been correctly charged in accordance with the Financial Administration and Audit Act 1977–1985 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
 - (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 the financial year last preceding, of the transactions of the Department for the financial year ended 30 June 1986, and of the financial position as at the close of that year.

Dated this thirty-first day of July 1986.

N.J. FLYNN
Acting Chief Administration Officer

J.J. KELLY
Conservator of Forests

CERTIFICATE OF THE AUDITOR-GENERAL

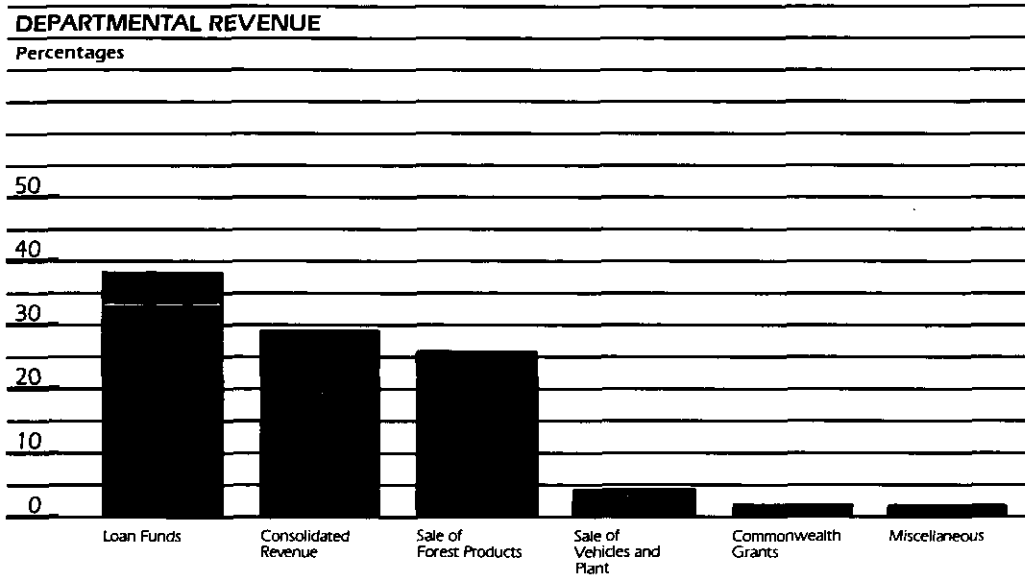
I have examined the accounts of the Department of Forestry for the financial year ended 30 June 1986, as required by the Financial Administration and Audit Act 1977–1985 and certify as follows —

- (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; and
- (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 the use of 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 the financial year ended 30 June 1986, and of the financial position as at the close of the year.

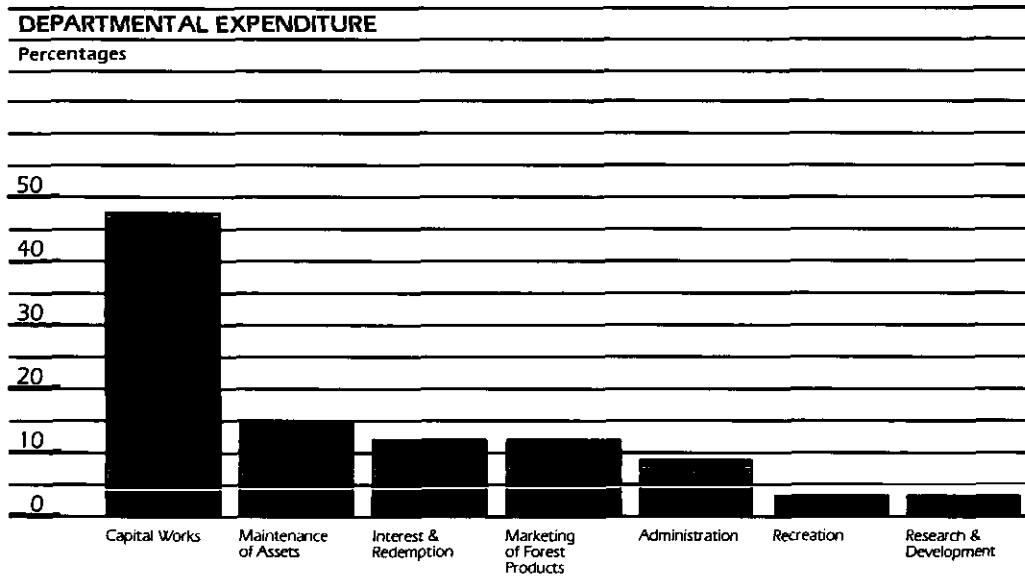
V.C. DOYLE
Auditor-General

APPENDIX 3 Departmental Receipts and Expenditure

Forest Products Revenue by Financial Year - 1985/86

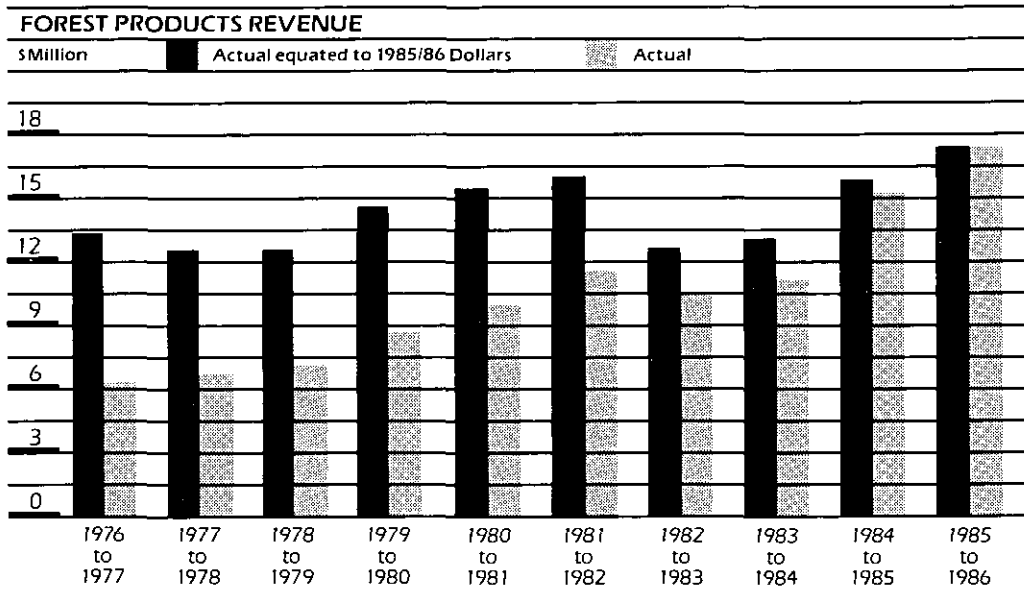


Capital Works Expenditure by Financial Year - 1985/86

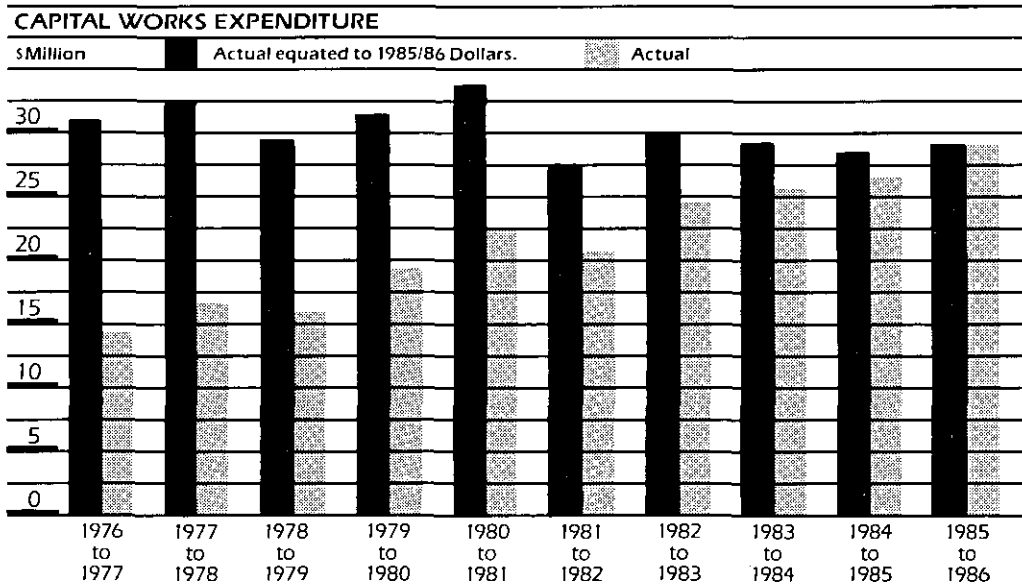


APPENDIX 3 – continued

Sources of Departmental Revenue – 1985/86



Application of Departmental Funds – 1985/86



APPENDIX 4
State Forests and Timber Reserves
listed by Districts and Sub-Districts as at June 30, 1986

Forestry District	Sub-District	No. of State Forests	State Forest Areas (hectares)
Atherton	Atherton	29	364974
	Total	29	364974
Brisbane	Beerburrum	23	58141
	Brisbane	24	48785
	Warwick	18	38081
	Total	65	145007
Dalby	Chinchilla	19	456997
	Dalby	12	227606
	Inglewood	30	211950
	Roma	40	351928
	Total	101	1248481
Gympie	Gympie	20	82954
	Imbil	15	63710
	Total	35	146664
Ingham	Ingham	17	291700
	Total	17	291700
Maryborough	Bundaberg	14	88482
	Maryborough	24	227662
	Tuan	6	62990
	Total	44	379134
Monto	Monto	55	368944
	Total	55	368944
Murgon	Jimna	4	46071
	Murgon	21	93539
	Total	25	139610
Rockhampton	Mackay	26	118375
	Rockhampton	50	646110
	Total	76	764485
Yarraman	Benarkin	15	48398
	Yarraman	11	32114
	Total	26	80512
State Total		473	3929511

APPENDIX 4 – continued

Forestry District	Sub-District	No. of Timber Reserves	Timber Reserve Areas (hectares)
Atherton	Atherton	24	302377
	Total	24	302377
Brisbane	Beerburrum	2	257
	Brisbane	4	4118
	Warwick	—	—
	Total	6	4375
Dalby	Chinchilla	1	5768
	Dalby	2	150
	Inglewood	—	—
	Roma	1	19653
	Total	4	25571
Gympie	Gympie	—	—
	Imbil	1	—
	Total	1	—
Ingham	Ingham	2	798
	Total	2	798
Maryborough	Bundaberg	5	4978
	Maryborough	7	9428
	Tuan	1	—
	Total	13	14406
Monto	Monto	23	38042
	Total	23	38042
Murgon	Jimna	1	1860
	Murgon	6	3982
	Total	7	5842
Rockhampton	Mackay	11	27715
	Rockhampton	14	131333
	Total	25	159048
Yarraman	Benarkin	4	2812
	Yarraman	2	7
	Total	6	2819
State Total		111	553278

APPENDIX 5

Reservation figures for the year ending June 30, 1986

State Forests	No. of Reservations	Area (hectares)
Total as at July 1, 1985	480	3918012
Crown Land declared State Forest	+ 2	+ 6113
Crown Land declared State Forest and added to existing State Forests		+ 7677
State Forests partially revoked		— 1231
Areas revoked for road and railway purposes		— 20
Recomputation of boundaries		— 1040
Amalgamation of existing State Forests	— 9	
Total as at June 30, 1986	473	3929511

Timber Reserves	No. of Reservations	Area (hectares)
Total as at July 1, 1985	111	558333
Timber Reserves partially revoked		— 5054
Recomputation of boundaries		— 1
Areas released		— —
Total as at June 30, 1986	111	553278

APPENDIX 6

Net area of Softwood Plantation established April 1, 1985 to March 31, 1986 — hectares —

District	Native Conifers		
	Hoop Pine		Total Native Conifers
	New Areas	Other Areas	
Atherton	—	—	—
Brisbane	—	—	—
Gympie	63	—	63
Ingham	—	—	—
Maryborough	—	—	—
Monto	56	—	56
Murgon	116	—	116
Rockhampton	—	—	—
Yarraman	43	181	224
Total 1985/86	278	181	459
Total 1984/85	400	135	535

District	Exotic Conifers						
	Slash Pine		Caribbean Pine		Other Exotic Conifers		Total Exotic Conifers
	New Areas	Other Areas	New Areas	Other Areas	New Areas	Other Areas	
Atherton	—	—	119	—	—	—	119
Brisbane	6	2	106	120	10	51	295
Gympie	167	—	1394	275	37	—	1873
Ingham	—	—	850	—	—	—	850
Maryborough	49	1	1749	231	5	12	2047
Monto	—	—	—	—	—	—	—
Murgon	—	—	—	—	—	—	—
Rockhampton	—	—	132	—	7	—	139
Yarraman	—	—	—	—	—	—	—
Total 1985/86	222	3	4350	626	59	63	5323
Total 1984/85	716	234	2793	17	116	—	3876

District	All Conifers	
	Total 1985/86	Total 1984/85
Atherton	119	121
Brisbane	295	296
Gympie	1936	1114
Ingham	850	509
Maryborough	2047	1804
Monto	56	59
Murgon	116	160
Rockhampton	139	136
Yarraman	224	212
Total	5782	4411

APPENDIX 7

* Net area of Effective Softwood Plantation as at March 31, 1986 — hectares —

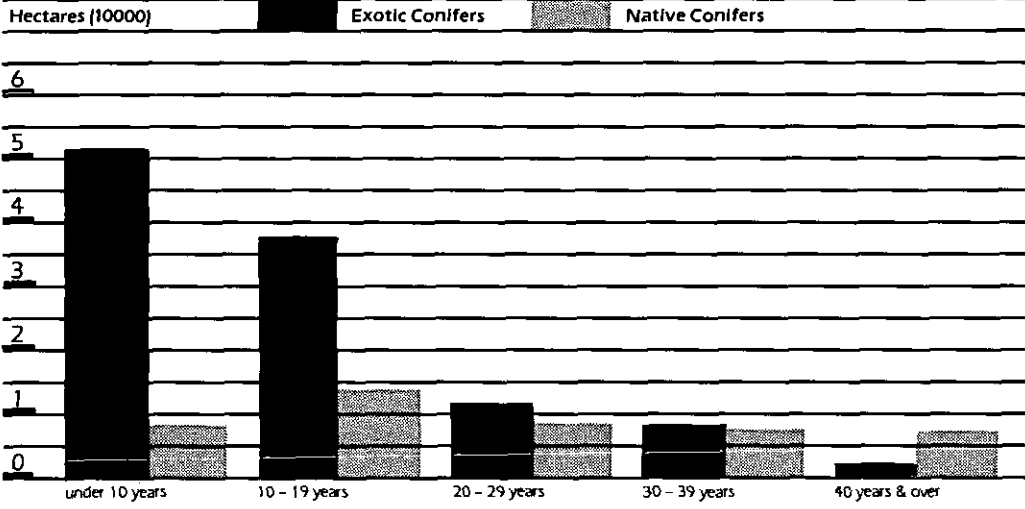
District	Native Conifers			Total Native Conifers
	Hoop Pine	Bunya Pine	Other Native Conifers	
Atherton	1018	2	106	1126
Brisbane	1520	8	4	1532
Gympie	12213	225	36	12474
Ingham	4	—	1	5
Maryborough	1467	3	29	1499
Monto	3082	1	1	3084
Murgon	8701	126	1	8828
Rockhampton	261	—	1	262
Yarraman	15100	115	4	15219
Total 1985/86	43366	480	183	44029
Total 1984/85	42985	487	184	43656

District	Exotic Conifers			Total Exotic Conifers
	Slash Pine	Caribbean Pine	Other Exotic Conifers	
Atherton	3	1455	101	1559
Brisbane	13455	2324	4050	19829
Gympie	25072	5533	680	31285
Ingham	2	6008	111	6121
Maryborough	27212	14293	179	41684
Monto	14	2	10	26
Murgon	1	—	46	47
Rockhampton	1008	5493	80	6581
Yarraman	512	400	1560	2472
Total 1985/86	67279	35508	6817	109604
Total 1984/85	67660	30744	6793	105197

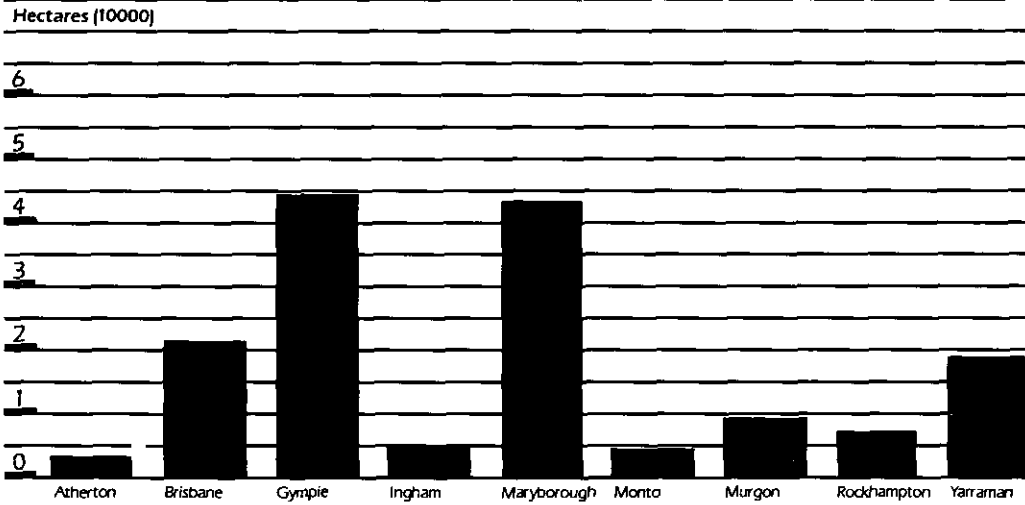
District	All Conifers	
	Total 1985/86	Total 1984/85
Atherton	2685	2567
Brisbane	21361	21258
Gympie	43759	42224
Ingham	6126	5276
Maryborough	43183	41395
Monto	3110	3063
Murgon	8875	8760
Rockhampton	6843	6708
Yarraman	17691	17602
Total	153633	148853

*The net effective area as at March 31, 1986 equals the net effective area as at March 31, 1985 plus the net area established during 1985/86 less corrections for write-offs, replantings, boundary recomputations and re-checks.

NET AREA OF EFFECTIVE SOFTWOOD PLANTATION BY AGE CLASS



PLANTATION AREA BY LOCATION



APPENDIX 8

* Net area of Effective Broadleaf Plantation as at March 31, 1986 — hectares —

District	Native Forest Hardwoods	Other Broadleaf Species	Miscellaneous Species	Total 1985/86	Total 1984/85
Atherton	28	151	8	187	191
Brisbane	347	3	41	391	373
Gympie	761	89	15	865	864
Ingham	1	1	4	6	6
Maryborough	49	—	36	85	70
Murgon	17	9	1	27	28
Rockhampton	1	1	4	6	6
Yarraman	124	35	31	190	199
Total 1985/86	1328	289	140	1757	
Total 1984/85	1338	289	110		1737

*Previous figures have been adjusted for write-offs, replantings, boundary recomputations and re-checks.

APPENDIX 9

Areas of Natural Forest Treated 1985-86 — hectares —

District	Eucalypt Forest	Cypress Pine Forest	Total 1985/86	Total 1984/85
Atherton	—	—	—	37
Brisbane	203	—	203	248
Dalby	—	4090	4090	5735
Gympie	136	—	136	102
Maryborough	185	—	185	—
Monto	37	—	37	—
Murgon	975	—	975	956
Yarraman	125	—	125	50
Total 1985/86	1661	4090	5751	
Total 1984/85	1393	5735		7128

APPENDIX 10
Operational Statistics 1985-86

Operation	Total 1985/86	Total 1984/85
Softwood Plantation Established (hectares)	5782	4411
Nursery Stock*, Departmental Use —		
Hoop Pine —		
Container	496309	440616
Caribbean Pine —		
Container	250142	130089
Open Root	4453705	2425737
Slash Pine —		
Container	—	4116
Open Root	291231	917477
Caribbean/Slash Pine Hybrid —		
Container	6000	15009
Open Root	119597	53115
Ocote/Caribbean Pine Hybrid —		
Container	—	1520
Radiata Pine —		
Open Root	20350	31153
Loblolly Pine —		
Container	6400	2925
Open Root	6918	19000
Ocote Pine —		
Container	—	2492
Eucalypts —		
Container	223788	63919
Nursery Stock, Sales —		
Forest Plots, Windbreaks, Rehabilitation, etc.	186575	100788
Amenity Stock	211445	452291
Total value of seedlings sold	\$323091	\$344715
Seed Sales —		
Value	\$223044	\$187400
Weed Control —		
Native Pine Plantation (hectares)	6291	6283
Exotic Pine Plantation (hectares)	12888	13137
Fertilizing —		
Establishment (hectares)	4678	3705
Maintenance (hectares)	3080	8073
Pruning —		
First (hectares)	2952	2823
Final (hectares)	5243	4373
Operative Plant as at June 30 —		
Motor Vehicles and Trucks	478	460
Graders	18	20
Rubber-tyred Tractors and Loaders	80	82
Crawler Dozers	26	31

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

APPENDIX 11
Milling Timber Removals from Crown Lands 1985-86
— cubic metres gross measure —

District	Native Forest Hardwoods and Scrubwoods				Total Hardwoods and Scrubwoods
	Forest Hardwoods	Rainforest Structural Timber	Prime Cabinet Woods	Misc. Cabinet Woods	
Atherton	3286	32306	17401	24957	77950
Brisbane	27606	31	—	1753	29390
Dalby	20987	—	—	—	20987
Gympie	31275	25	30	103	31433
Ingham	2142	4593	5073	3845	15653
Maryborough	40587	131	13	62	40793
Monto	33066	20	—	—	33086
Murgon	24757	195	—	9	24961
Rockhampton	37773	2949	100	1267	42089
Yarraman	4132	45	—	27	4204
Total 1985/86	225611	40295	22617	32023	320546
Total 1984/85	211562	40499	25434	36239	313734

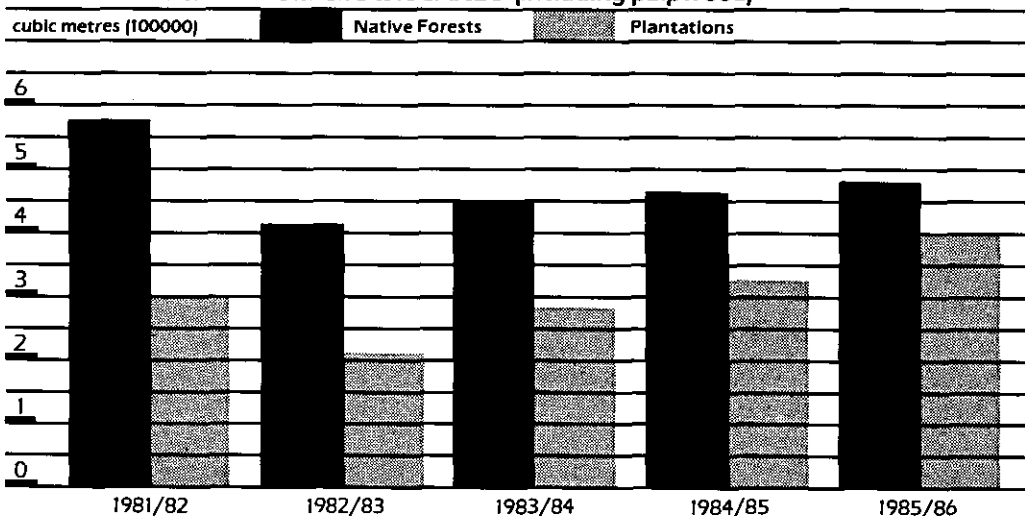
District	Native Forest Conifers			Total Conifers
	Hoop, Bunya and Kauri Pines	Cypress Pine	Other Conifers	
Atherton	2365	—	818	3183
Brisbane	22	104	—	126
Dalby	—	114967	—	114967
Gympie	1357	—	—	1357
Ingham	291	—	10	301
Maryborough	14909	—	—	14909
Monto	1684	—	—	1684
Murgon	2798	—	—	2798
Rockhampton	231	1239	267	1737
Yarraman	148	—	—	148
Total 1985/86	23805	116310	1095	141210
Total 1984/85	28216	119285	146	147647

District	Plantation			Total Plantation
	Native Conifers	Exotic Conifers	Non-Conifers	
Atherton	6669	—	—	6669
Brisbane	886	63157	—	64043
Gympie	24213	45710	—	69923
Maryborough	1532	52833	—	54365
Monto	8839	—	—	8839
Murgon	6050	1091	—	7141
Rockhampton	—	15130	—	15130
Yarraman	85946	5063	114	91123
Total 1985/86	134135	182984	114	317233
Total 1984/85	97880	143939	267	242086

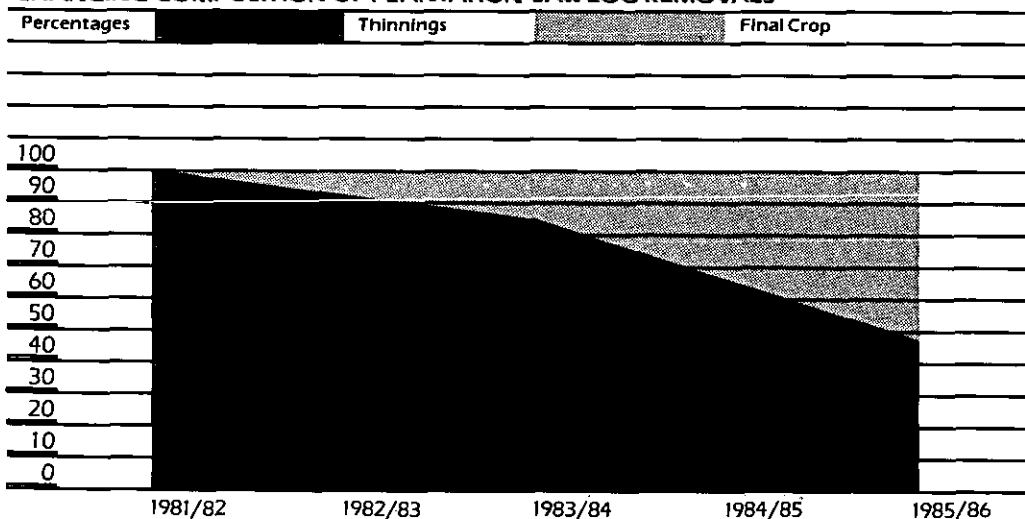
APPENDIX 11 — continued

District	All Milling Timber	
	Total 1985/86	Total 1984/85
Atherton	87802	87432
Brisbane	93559	87600
Dalby	135954	137034
Gympie	102713	89414
Ingham	15954	20401
Maryborough	110067	95461
Monto	43609	39891
Murgon	34900	32751
Rockhampton	58956	48482
Yarraman	95475	65001
Total	778989	703467

TIMBER REMOVALS FROM CROWN LANDS (including pulpwood)



CHANGING COMPOSITION OF PLANTATION SAWLOG REMOVALS



APPENDIX 12

Pulpwood Removals from Crown Lands 1985-86

— cubic metres gross measure —

District	Plantation		Native Forest	Total 1985/86	Total 1984/85
	Native Conifers	Exotic Conifers	Non-Conifers		
Brisbane	206	21784	—	21990	26378
Gympie	—	32707	—	32707	20356
Ingham	—	63	—	63	—
Maryborough	—	24156	—	24156	32041
Murgon	743	—	—	743	600
Yarraman	—	2292	9361	11653	8020
Total 1985/86	949	81002	9361	91312	
Total 1984/85	582	81612	5201		87395

APPENDIX 13

Miscellaneous Removals from Crown Lands

Product	Total 1985/86	Total 1984/85	Unit
Miscellaneous Timber Products			
Black Wattle	1326	35	pieces
Bridge Timbers	1159	929	cubic metres
Chopping Blocks	74	196	cubic metres
*Fencing Timbers	11070	19045	cubic metres
Fuelwood and Charcoal	8049	5926	tonnes
Girders, Corbels, Piles and Sills	24813	14865	metres
Headlogs, Limbs and Condemned Logs	343	694	cubic metres
*Landscape Timbers	935	5290	cubic metres
*Mining Timbers	3772	10714	cubic metres
Offcuts	36399	2228	cubic metres
Plantation Roundwood	104496	—	pieces
Poles	132708	137072	metres
Poling Timber	225	—	tonnes
Round Timber	177032	161326	metres
Sandalwood	175	38	tonnes
Sawdust	13	—	tonnes
Sleepers —			
1.5 metres	21881	38572	pieces
2.15 metres	226940	183191	pieces
others	3229	3964	pieces
Stumps, Fitches and Crotches	808	452	cubic metres
Turnout Timbers	3131	302	cubic metres
Woodchips	14	18	tonnes
Non-Timber Products			
Bark	131	46	tonnes
Beehives	9	8	number
Bunya Nut Cones	175	103	number
Fern Fibre	19	27	cubic metres
Flora	16218	11842	pieces
Landscape Rocks	380	195	tonnes
Lawyer Cane	70	99	tonnes
Leaf Mould	30	48	sacks
Peat	—	11	tonnes
Pine Cones	74	66	cubic metres
Pine Tops	166	—	pieces
Quarry Material	1433269	2146641	cubic metres
Seed	17	—	kilogrammes
Slate and Marble	1474	1618	cubic metres
Wildflowers	1020	—	kilogrammes

*Approximate only. Some figures used to calculate totals were converted from lineal metres or pieces.

APPENDIX 14
Milling Timber Processed from Native Lands 1985-86

— cubic metres gross measure —

District	Native Forest Hardwoods and Scrubwoods				Total Hardwoods and Scrubwoods
	Forest Hardwoods	Rainforest Structural Timber	Prime Cabinet Woods	Misc. Cabinet Woods	
Atherton	5293	3463	1290	4560	14606
Brisbane	111024	2944	70	181	114219
Dalby	9944	—	—	—	9944
Gympie	9063	1794	—	258	11115
Ingham	5993	1012	428	2468	9901
Maryborough	60108	390	—	—	60498
Monto	19411	16	—	—	19427
Murgon	10482	—	—	—	10482
Rockhampton	32908	2513	250	902	36573
Yarraman	18760	—	—	6	18766
Total 1985/86	282986	12132	2038	8375	305531
Total 1984/85*	315382	13047	1731	6495	336655

District	Native Forest Conifers			Total Conifers
	Hoop, Bunya and Kauri Pines	Cypress Pine	Other Conifers	
Atherton	64	2	56	122
Brisbane	1766	315	1815	3896
Dalby	—	39906	—	39906
Gympie	3663	—	150	3813
Ingham	—	—	—	—
Maryborough	207	40	64	311
Monto	—	—	—	—
Murgon	295	—	—	295
Rockhampton	—	74	—	74
Yarraman	767	11	55	833
Total 1985/86	6762	40348	2140	49250
Total 1984/85*	5106	43405	970	49481

District	Plantation		Imported	Total Plantation and Imported
	Native Conifers	Exotic Conifers		
Atherton	25	48	—	73
Brisbane	2432	40361	7925	50718
Ingham	4	—	—	4
Maryborough	49	—	—	49
Monto	2	—	—	2
Rockhampton	—	1	—	1
Yarraman	—	1002	—	1002
Total 1985/86	2512	41412	7925	51849
Total 1984/85*	1254	34523	8302	44079

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

*Corrected figures

APPENDIX 14 — continued

District	All Milling Timber	
	Total 1985/86	Total 1984/85*
Atherton	14801	14575
Brisbane	168833	184690
Dalby	49850	53884
Gympie	14928	14663
Ingham	9905	10206
Maryborough	60858	55149
Monto	19429	18850
Murgon	10777	10361
Rockhampton	36648	49713
Yarraman	20601	18124
Total	406630	430215

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

*Corrected figures

APPENDIX 15

Pulpwood Processed from Private Lands 1985–86 — cubic metres gross measure —

District	Forest Hardwoods	Plantation — Exotic Conifers	Total 1985/86	Total 1984/85*
Brisbane	50848	23528	74376	100314
Total 1985/86	50848	23528	74376	
Total 1984/85*	75510	24804		100314

*Corrected figures

APPENDIX 16

Staff Distribution — June 30, 1986

	Head Office	District	Total 30/6/86	Total 30/6/85
*Salaried Officers —				
Graduate	101	62	163	165
Technical	79	35	114	110
Field Supervisory	1	104	105	105
Administrative/Clerical	139	116	255	256
Miscellaneous	8	1	9	9
Sub-Total	328	318	646	645
Wages Employees —				
Reforestation and Research	4	726	730	787
Marketing	12	154	166	171
Construction of Capital Improvements	1	17	18	69
Maintenance of Plant and Capital Improvements	8	145	153	155
Recreation Facilities —				
Construction & Maintenance	—	44	44	39
Miscellaneous	15	17	32	17
Sub-Total	40	1103	1143	1238
Total 30/6/86	368	1421	1789	
Total 30/6/85	365	1518		1883

*Figures in this category are based on Public Service Board Establishment.

APPENDIX 17

Publications

Publications — General

Tree Advice:

Trees for koalas
Propagation of Trees and Shrubs from Seed

Information Sheets:

No. 20 Forest Management in the Conondale Range
No. 21 Forest Resources
No. 22 Dry Sclerophyll (Open) Forest
No. 23 Wet Sclerophyll (Tall Open) Forest
No. 24 Hoop Pine
No. 25 Fertilising Trees

Brochures:

Woodworks
Forest Recreation — South East Queensland
Mapping Your Forests

Booklets:

Rainforests

Periodicals:

"Between the Leaves" (Departmental Newsletter)

Publications — Research

Advisory Leaflets:

No. 22 HOCKEY, M.J. 1985. Anobiid beetles in timber and buildings in Queensland. 2p.

Technical Papers:

No. 39 LEIGHTLEY, L.E. 1986. An Introduction to Wood Preservation Requirements in Queensland. 11p.

Research Notes:

No. 41 ALLEN, P.J. 1985. Estimation of genetic parameters for wood properties in slash pine in South East Queensland. 14p. + app.

Research Reports:

No. 4 Report of Research Activities for 1982, 1983. 80p.

Timber Notes:

No. 19 KENNEDY, M.J. 1986. Choosing Paint for Beehive Timbers. 4p.
No. 20 CAUSE, M.L. 1985. Timber fences for residential areas. 10p.
No. 21 KYNASTON, W.T. 1985. Strength grouping and stress grading of structural timber. 5p.

APPENDIX 17 — continued

Publications — Maps

Reference	Map Name	Edition	District
Scale 1:15 000			
	Beerburrum East Sh.1	3	Brisbane
	Beerburrum East Sh.2	5	Brisbane
	Beerburrum East Sh.3	3	Brisbane
	Beerburrum East Sh.4	3	Brisbane
	Beerburrum West Sh.1	2	Brisbane
	Beerburrum West Sh.2(N)	1	Brisbane
	Beerburrum West Sh.2(S)	1	Brisbane
	Beerwah Sh.1	5	Brisbane
	Beerwah Sh.2	5	Brisbane
	Neerdie Sh.1	1	Gympie
Scale 1:25 000			
	Bellthorpe	3	Brisbane
	Emu Vale	3	Brisbane
	<i>Mt. Glorious</i>	2	Brisbane
7964-12	Mt. Danbullan	1	Atherton
9444-21	Landsborough	1	Brisbane
9444-22	Glass House Mountains	1	Brisbane
9444-23	Woodford	1	Brisbane
9444-24	Maleny	1	Brisbane
9544-31	Bribie North	1	Brisbane
9544-32	Welsby Lagoon	1	Brisbane
9544-33	Hussey Creek	1	Brisbane
9544-34	Caloundra	1	Brisbane
Scale 1:50 000			
9345-1	Woolooga	3	Maryborough/Gympie
9346-4	Biggenden	2	Maryborough
9444-3	Kilcoy	3	Brisbane/Murgon
9445-1	Wolvi	5	Gympie
9446-1	<i>Boonooroo</i>	4	Maryborough
9446-2	Kauri Creek	5	Maryborough/Gympie
9446-3	Gundiah	4	Gympie/Maryborough
9446-4	Maryborough	4	Maryborough
9447-3	Howard	5	Maryborough
9543-4	Redcliffe	3	Brisbane
9545-4	Cooloola	3	Gympie
Scale 1:500 000			
	North Queensland	3	Atherton/Ingham/ Rockhampton

APPENDIX 18
Forest Districts



HEAD OFFICE
Mineral House
41 George Street
BRISBANE 4000
Telex: AA43988
GPO Box 944

DISTRICT FORESTERS:

Atherton:	E.G. MANNION	Telex: AA 46108	PO Box 210	(070) 91 1844
Brisbane:	W. GREASLEY	Telex: AA 44841	GPO Box 1473	(07) 224 2111
Dalby:	D.M. WILSON	Telex: AA48712	PO Box 590	(074) 62 2022
Gympie:	G.J. SWARTZ	Telex: AA42259	M/S 483	(071) 82 2244
Ingham:	L.S. HAWKES	Telex: AA47691	PO Box 1322	(077) 76 2354
Maryborough:	P.V. HOLZWORTH	Telex: AA49639	PO Box 219	(071) 22 1112
Monto:	K.L. WAUGH	Telex: AA49615	PO Box 219	(071) 66 1405
Murgon:	P.S. MALE	Telex: AA49712	PO Box 42	(071) 68 1422
Rockhampton:	P.J. TWEEDY	Telex: AA49138	PO Box 344	(079) 27 6877
Yarraman:	E.A. EPP	Telex: AA44844	PO Box 21	(071) 63 8223