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ORESTRY

## ANNUAL REPORT

1988-1989



*The Hon. Geoff Muntz, M.L.A., Minister for Environment,  
Conservation and Forestry.*

PRESENTED TO PARLIAMENT BY COMMAND  
September 1989



**Department of Forestry,  
Queensland**



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*The Executive*

*(from left to right):*

*Front row: Conservator of Forests, Tom Ryan; Assistant Conservator of Forests (Technical Services), Norm Clough.*

*Centre: Assistant Conservator of Forests (Strategic Services), Terry Johnston.*

*Back Row: Assistant Conservator of Forests (Corporate Services), Neil Flynn; Deputy Conservator of Forests, Peter Cranny;*

The Honourable G. H. Muntz, A.A.I.V., M.L.A.  
Minister for the Environment, Conservation and Forestry  
BRISBANE Q 4000

Dear Minister

It is with pleasure and with a sense of pride and achievement that I report to you on *the activities of the Department of Forestry for the financial year 1988-89.*

This year has been one of the most significant years in the Department's history with what could best be described as a quantum leap in the direction taken in forest management and administration.

This major change in direction did not occur without a deal of lead up work commencing as early as September 1984 when the document *Forest management in Queensland* was published. This policy document consolidated some seventy years of policy development and provided an essential platform both for a major thrust toward development of Management Plans to cover State Forests throughout the State and for changes in management direction which have now been followed.

Adoption by the Queensland Government of the recommendations of the Savage Report in 1986 encouraged Departments to develop a corporate management style, to simplify regulatory procedures and to develop leaner and more efficient administrative structures. Fortuitously the Department of Forestry was well placed at that stage to respond quickly to the encouragement given by the Government, and the year 1988-89 has seen the culmination of much of the developmental work *initiated as a result of the adoption of the Savage Report recommendations.*

It is clear the Department is at or near the lead in implementing Government policy for new directions in public administration. This in itself has boosted morale within the Department.

Program management was introduced for the first time on 1 July 1988, so the Department is now able to describe the program structure adopted and report for the first time along program management lines. Major efforts have been made to separate the social and commercial functions and objectives of the Department, and this separation is reflected in the new program structure. The administrative structures of Head Office, Research and Districts have also been streamlined to enable efficient and effective program management.

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Overall there is a major emphasis on financial performance. However, this is tempered by close monitoring of work standards, not only for cost/benefit reasons, but also to provide for responsible environmental protection.

The nature and method of past and future funding for the Department's commercial activities is being reviewed, together with the relationship between the Department's indebtedness and the level of State equity in the forest assets which have been developed.

Looking ahead, next year the Department is moving to commercial (accrual) accounting incorporating valuation based performance measures. This as well as the accumulation of comparative annual performance data on a program basis will ensure that in subsequent years reporting will be considerably more meaningful.

The commercial activities of the Department are of course, essential to the Queensland wood processing industry which directly employs some 14 900 people, with an annual turnover of \$1.1 billion. While our native forests continue to play an important role in providing forest products to meet domestic demand, conifer plantations are providing an increasing proportion of a progressively increasing demand. This year saw the establishment of a \$78 million medium density fibreboard plant near Gympie which brought the value of industry development based on the Tuan-Toolara exotic pine resource to around \$150 million, with the import replacement value of processed wood products being of the order of \$120 million and certain to rise appreciably. Other primary processing capacity is being developed and further secondary processing developments are expected to follow.

While the Crown exotic pine resources of the Gympie-Maryborough region have a major impact on regional development, employment diversification and security of the local economy, it is with concern that I record pressures for release of State Forest areas dedicated to conifer production for agricultural expansion. Loss of productive forest areas will impact on long term commitments to the wood processing industry which by its nature requires long term security of its resource base.

In addition to planting in excess of 170 million trees over the years for commercial timber production, the Department has provided a long standing program aimed at encouraging landholders to plant trees for land rehabilitation and watershed protection. It is pleasing to observe the growing awareness among the rural community that greater consideration must be given to maintaining or establishing tree cover on areas unsuitable for sustainable agriculture. Accordingly, in the coming year the Department will introduce an expanded tree planting advisory service as part of the Queensland Government's Land Care Strategy. This will include provision of trees for approved land care projects, an upgraded computer based tree advice program, appointments of additional regional extension officers and additional research studies covering regeneration and restoration of trees on degraded farm lands.

It is with regret that I refer to the unilateral nomination by the Commonwealth Government of the wet tropical forests of north-east Queensland for World Heritage listing. I am convinced that a balance between broad scale conservation and closely controlled selective utilisation on a small part of the defined area is not only rational and feasible, but also highly desirable. That this balance was offered by the State but was not entertained in any way by the Commonwealth will I believe be a cause for broader national and international regret in the future.

This year has provided a depth of challenge to Departmental staff at all levels. Major changes in the approach to management, the associated significant restructuring and consequential staff movements, additional work loads associated with establishing and defending Queensland's position on the wet tropics World Heritage issue, and the increased productivity from our forests have all lead to greater pressures upon our manpower resources and their families. I record my deep appreciation to my staff for their dedication, enthusiasm and loyalty in what has been a difficult but highly productive year.

The support and commitment you have given as Minister has been an essential part of the Department's new direction so successfully adopted this year. In particular, your vigorous and sustained assertion of the Queensland Government's position on the future management of the wet tropical forest of north-east Queensland has been of immense importance.

On behalf of the Department I thank you.

Yours faithfully



**T. Ryan**  
Conservator of Forests

	1988-89	1987-88	1986-87	1985-86	1984-85
Crown Forest Estate					
State Forest - '000 ha	3 984	3 973	3 969	3 930	3 918
Timber Reserve - '000 ha	529	531	544	553	558
Plantation Forest Management					
Total area - '000 ha	169	165	160	155	151
New area established - ha	5 508	5 135	5 310	4 935	4 042
Replanted area - ha	617	633	533	876	385
Native Forest Management					
Area treated - ha	3 645	6 010	6 722	5 751	7 128
Nursery Stock Produced					
For Departmental use - '000	6 492	6 174	5 778	5 915	4 107
For Amenity and Forest Plot sales - '000	488	707	588	449	553
Hazard Reduction (Prescribed) Burning					
Native Forests - '000 ha	24	130	158	128	154
Plantations - '000 ha	4	21	7	13	10
Wildfires					
Number of fires	87	99	126	78	81
Area burnt - '000 ha	33	14	44	15	19
Roads Constructed					
Kilometres	277	326	276	292	365
Timber Cut on Crown Lands					
Native Forests - '000m <sup>3</sup>	425	450	438	471	467
Plantation - '000 m <sup>3</sup>	647	497	435	399	324
Expenditure					
Programs	71 542	70 786	72 355	67 371	61 150
Interest and redemption - \$'000	20 710	14 674	11 084	9 203	7 822
Revenue	47 633	37 712	35 021	35 580	26 808
Staff					
Wages	900	985	1 120	1 143	1 238
Salaries	560	614	640	648	643



*Forestry Act 1959-1987*

An Act to provide for forest reservations, the management, silvicultural treatment and protection of State Forests, and the sale and disposal of forest products and quarry material, the property of the Crown on State Forests, Timber Reserves and on other lands.

*Forestry Regulations 1987*

*Sawmills Licencing Act 1936-1979*

An Act to make provision for the stabilisation of the timber industry by the licencing of sawmills and veneer and plywood mills.

*The Sawmills Licencing Regulations of 1965*

*Timber Utilisation and Marketing Act 1987*

An Act to regulate

- the sale and use of timber susceptible to lyctid borers;
- standards of seasoning for the sale and use of timber;
- standards of preservation and branding for the production and sale of preservative treated timber.

*Timber Utilisation and Marketing Regulations 1987*

*Diseases in Timber Act 1975*

An Act to provide for the taking of measures for the extermination or the prevention or control of the dissemination of any disease in timber.

*Diseases in Timber Regulations 1979*

The following are jointly administered with the Department of Environment and Conservation.

*Fraser Island Public Access Act 1985*

An Act to provide for the authorisation and control of vehicle access to and the use by the public of Fraser Island Recreation Area for recreation.

*Fraser Island Public Access Regulations 1985*

*Fraser Island Recreation Area By-Laws*

*Recreation Areas Management Act 1988*

An Act to provide for the setting apart of land and waters throughout Queensland as, and for management of recreational activities in, Recreation Areas, to repeal the *Fraser Island Public Access Act 1985* and the *Brisbane Forest Park Act 1977-1988* and for related purposes.

*Recreation Areas Management Regulations 1989*

## **PHILOSOPHY**

The Department's Purpose and Goals Statement is the basis for the formulation of goals, strategies and objectives pursued by the organisation in its various programs.

However, the Department draws its distinctive and unique character not from goals, objectives or purpose statements but from a series of basic beliefs which overlay its *modus operandi* at all levels. Elements of this basic philosophy which are upheld in the Department's approach to the tasks it performs are set out below.

### ***Our accountability***

*"As a Department we are directly accountable to the Minister for Environment, Conservation and Forestry and responsible for providing professional and objective advice on forest management to the Minister and other members of Government."*

### ***Our people***

*"We believe that our staff are the Department's most important asset. To this end we will manage our human resources in a manner that contributes to both Departmental achievements and personal development."*

### ***Our customers***

*"We value our customers highly. We recognise the need to clearly identify their requirements, and to provide high quality products and service in a timely manner and at reasonable prices. Customer satisfaction is our aim."*

### ***Our management style***

*"We are committed to a participative but not consensual management style. Supervisors are expected to manage their work units and are accountable for their decisions."*

*We have a solution oriented 'we can do' approach to difficult issues which arise.*

*We encourage a degree of measured risk taking by managers at all levels. We accept that occasionally wrong decisions will be made. However, we consider exposure to the consequences of a range of decision outcomes will result in improved management performance.*

*We recognise the benefit of allowing decisions to be taken by people 'at the worksite'. Delegation of authority is practised to encourage and facilitate decision making at the appropriate level. Results are recognised as the appropriate measure of performance."*

***Our approach to forest land use planning***

*“While all our operations are performed in an environmentally responsible manner, we recognise some land uses are wholly or partially incompatible with each other. We resolve these potential conflicts through the use of Management Priority Area (MPA) Zoning.”\**

***Our responsibility as citizens***

*“It is our intention to willingly and enthusiastically fulfil our responsibilities as members of the communities in which we operate.*

*We endeavour to manage our affairs, both individually and as a Department with integrity and excellence.”*

**OPERATING STRATEGY**

**The Executive**

The Executive provides broad policy and program direction as well as ensuring higher level coordination of program and organisational units. It actively promotes and explains the Department’s activities to counterparts in other departments, to politicians, the media and other organisations.

**Support Services**

Department of Forestry programs are outcome oriented rather than organisationally based and are derived from goals relating to the production of forest products and provision of forest services. However, the Department’s structure is still segmented along work unit lines. Functions such as Financial Management, Personnel Services and Information Technology are regarded as program support activities and their costs are fully allocated across the programs which they support.

This operating statement is designed to provide a focus for these support services and a rationale from which they can draw their charter.

The services are

*Personnel*

The focus of the Personnel function includes the hiring, deployment, development, training, motivation, safety, remuneration and compensation of people who are dedicated to excellent performance and achievement on the Department’s behalf.

*\*This subject is covered in more detail in the Native Forest Production Program*

### *Strategic Services*

The focus of Strategic Services is on initiating and coordinating the development, implementation and evaluation of corporate plans, program management and program budgeting within the Department.

Efficiency and effectiveness in resource use becomes the reference point for assessment of performance at all levels.

### *Information Technology*

The provision and development of management information systems underwrites the Department's ability to measure performance and achieve program goals and objectives. Ensuring the effective utilisation of Information Technology resources is an essential and ongoing corporate task.

### *Financial Management*

Financial and budgetary services are provided to allow the monitoring and reporting of Departmental progress and achievements, including

- accounts payable and receivable
- payroll processing
- program budgeting and allocation
- financial development and reporting

The focus of these support activities is on providing accurate and timely information appropriate to the management of Departmental programs, while ensuring compliance with all relevant accounting standards and procedural requirements.

### *Library/Records*

The achievements of program goals depends on both an effective filing support system and also an extensive information and archival base for staff, the forest industries and the general public.

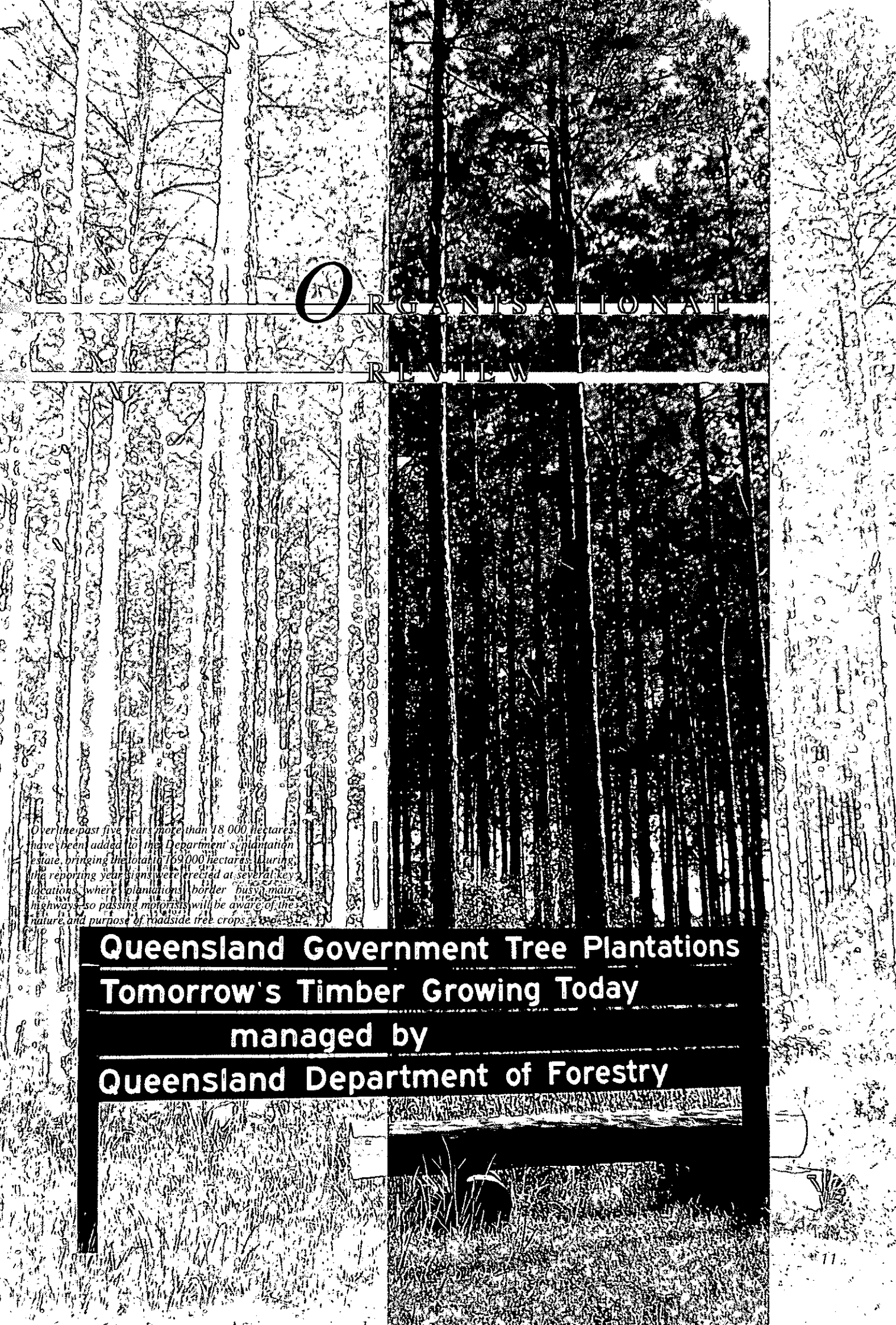
### *Estates and Legislation*

The Department requires adequate statutory powers and also knowledge and understanding of legislative and legal processes and precedents to pursue its program goals. The Estates and Legislation function provides this essential service as well as handling forest estate management.

### *Purchasing*

Program support requires an efficient purchasing function concerned with the procurement of all goods and services required to ensure the organisation functions effectively. This service is provided by the Purchasing and Stores Section.

The Department has a number of other support service work units which are more directly linked to individual programs. These include Survey and Mapping, Land Use and Information, Forest Research, Timber Research and Extension, Engineering, Marketing and Yield Regulation, Fire Protection and Forest Development.



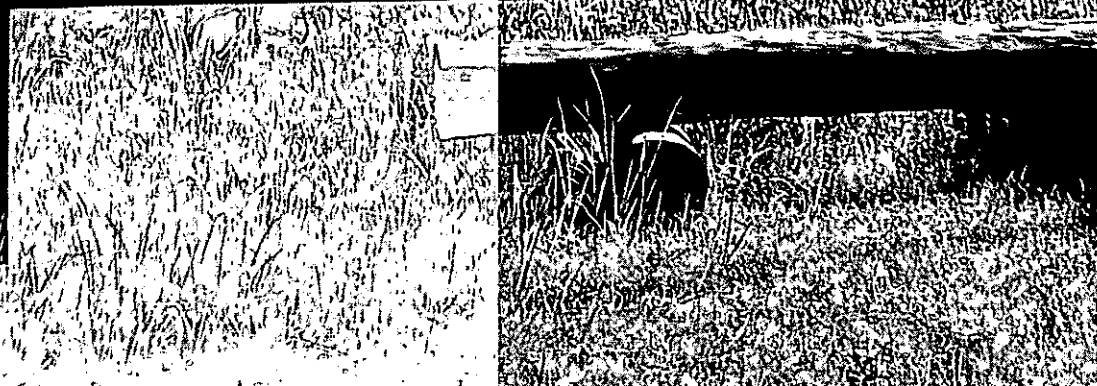
# ORGANISATIONAL REVIEW

*Over the past five years, more than 18 000 hectares have been added to the Department's plantation estate, bringing the total to 169 000 hectares. During the reporting year signs were erected at several key locations, where plantations border busy main highways, so passing motorists will be aware of the nature and purpose of roadside tree crops.*

**Queensland Government Tree Plantations  
Tomorrow's Timber Growing Today**

**managed by**

**Queensland Department of Forestry**



*"Programs are outcome oriented, not organisationally based, and are derived from Departmental goals relating to production of forest products and provision of forest based services. Each program therefore reflects not only a reason for the organisation's existence but also a specific function of the Department."*



*These saplings, mostly of maple silkwood (*Flindersia pimenteliana*) are in an Atherton Tableland area that was selection logged in 1951, treated in 1953 and relogged during the period 1978-80.*



This year has seen dramatic changes within the organisational structure of the Department of Forestry. The strategic planning process is well advanced, and with the implementation of program management procedures on 1 July 1988, attention is now clearly focused on program objectives based on the Department's established Purpose and Goals.

## **PURPOSE AND GOALS**

### **Purpose Statement**

The overall purpose of the Queensland Department of Forestry is the sustainable production of forest products and services within a balanced conservation program which includes the multiple use management of State Forest lands in accordance with the long term best interests of the community.

### **Goal Statement**

#### *Goal 1*

To produce forest products and services in accordance with long term community requirements.

#### *Goal 2*

To ensure State Forests are used and managed in an efficient, effective and environmentally responsible manner.

#### *Goal 3*

To maximise community benefits arising from the management of State Forests while ensuring a positive return on any investment funds utilised.

#### *Goal 4*

To encourage and facilitate the long term economic viability of the Queensland based forest products sector.

#### *Goal 5*

To encourage the development and sound management of private forest resources.

#### *Goal 6*

To ensure a high level of community awareness of the values and diverse uses of trees and forests.



*Forestry, as a land management discipline, requires careful planning to achieve optimal productivity in an environmentally responsible manner. Here, Forest Ranger Eric Glassop, left, and Program Manager Geoff Johnson, study planning documents by the roadside in Kenilworth State Forest, in the Sunshine Coast hinterland.*





**With the introduction of program management procedures six primary programs have become the focus of all organisational endeavours.**

Similar or complementary activities are now grouped into discrete program areas and within each, a great deal of energy has been directed towards developing financial and non-financial goals. All financial inputs and outputs of the organisation are accounted for against these programs.

Programs are outcome oriented, not organisationally based, and are derived from Departmental goals relating to production of forest products and provision of forest based services. Each program therefore reflects not only a reason for the organisation's existence but also a specific function of the Department.

Service functions such as human resource management, financial management, performance audit, information technology and research and development do not have program status. Rather, they are regarded as program support activities and their costs are accordingly identified in Departmental accounts and fully allocated to outcome oriented programs.

The program structure now in place consists of six primary programs each with its own sub-programs.

<b>Program</b>	<b>Sub-Program</b>
Native Forest Production	Cypress Hardwood Rainforest
Plantation Production	Exotics Native
Other Crown Land Sales	Cypress Hardwood Sandalwood
Quarry Material Sales	
Forest Services	Recreation Forest Extension Timber Utilisation Extension Forest Entitlement Areas Wet Tropics Non-Timber Management
Consultancies	By project

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## **PERFORMANCE REVIEW**

For many years the Department has used operational performance indicators as a means of monitoring performance, e.g. efficiency indicators to measure the relationship between inputs and outputs of an activity.

With the introduction of program management, the Department is now in a position to develop a complete array of performance indicators involving both financial and non-financial measures. The objectives of each program are being drafted in quantitative and time-constrained terms and good progress in this area will facilitate *rapid development of a full range of performance indicators at program and sub-program level.*

Wherever possible performance indicator design will incorporate a 'roll-up' facility to allow the aggregation or averaging of measures of performance into groups of units, e.g. a summary of district-level performance indicators should be applicable as measures of performance at a regional level.

# Goals, strategies and objectives

Draft goals, strategies and objectives for all programs have been developed and are being circulated for comment within the organisation.

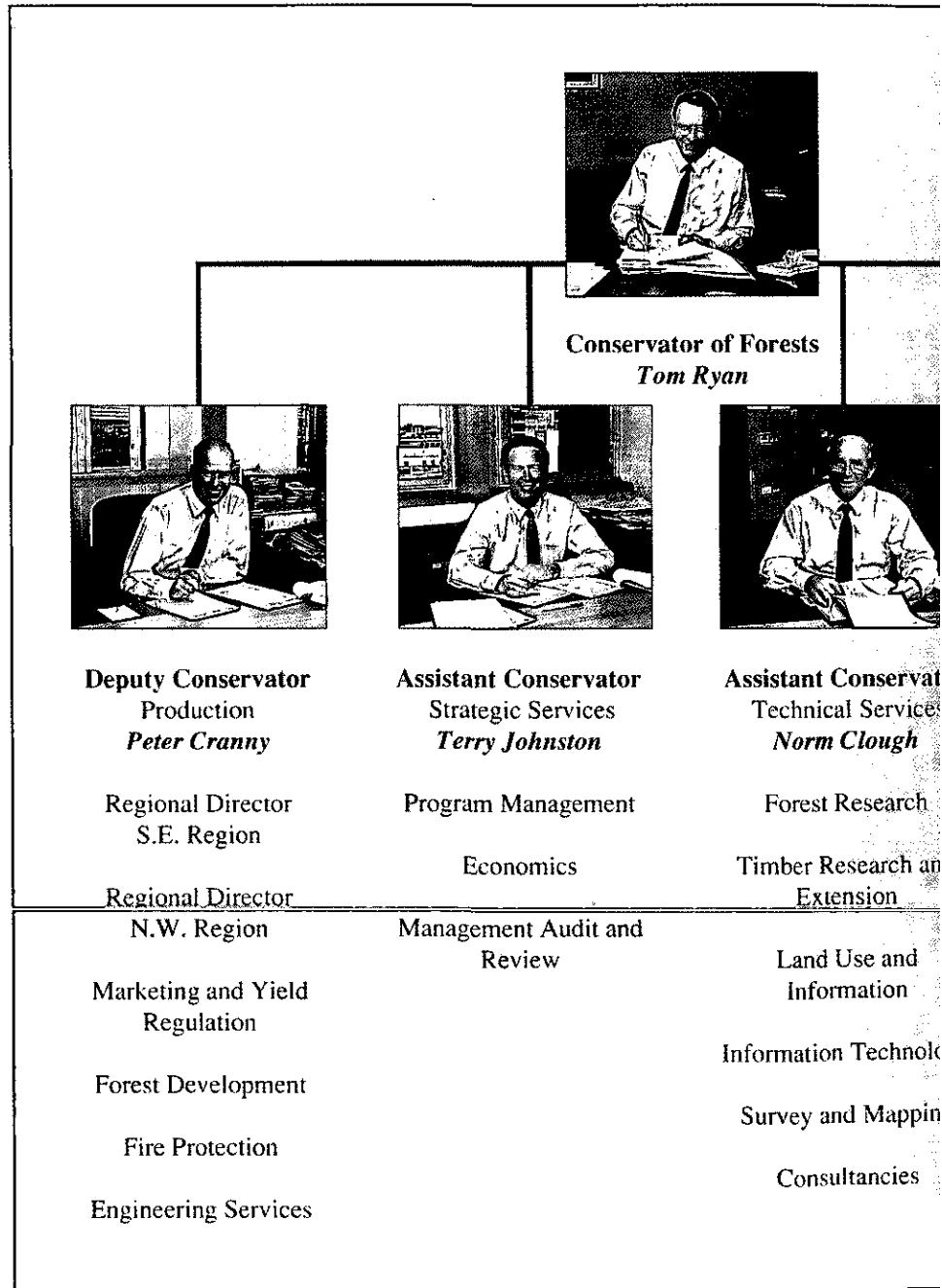
Each program has key financial goals based on the Department's financial inputs and outputs. Newly established accounting and financial reporting systems will enable an accurate and timely assessment of the financial performance of each program in line with these goals.

<b>Program</b>	<b>Key Financial Goals</b>
Native Forest Production	Annual revenues must exceed annual costs, including those associated with research, protection, maintenance and marketing.
Plantation Production	Maximise the rate of return on investment and ensure a minimum real rate of return of 3.0%.
Other Crown Land Sales	Annual revenues must cover annual costs.
Quarry Material Sales	Annual revenue must cover annual costs.  Pricing policies should reflect the Government's State development objectives.
Forest Services including Recreation	Adoption of the 'user pays' principle where practicable.  Full Government funding for regulatory services or other services provided by the Department for the public as a matter of Government policy, where it is not practicable to apply the 'user pays' principle.
Consultancies	Ensure that revenue exceeds all costs by at least 10% on an individual project basis.

# Organisational structure

*" In a regional management organisation such as the Department of Forestry, a structure based purely on program lines would suffer long and inefficient lines of accountability and communication as well as duplication of support services."*

The commitment to program management has necessitated a review of the organisational structure, the objective being the enhancement of the Department's ability to achieve its goals, and thus improve efficiency and/or effectiveness.



Whilst the program structure is the focus of organisational endeavours, the new Departmental structure is still broadly segmented along traditional work unit lines. In a regional management organisation such as the Department of Forestry, a structure based purely on program lines would suffer long and inefficient lines of accountability and communication as well as duplication of support services.

The first stage of the restructuring was achieved in March 1989 with appointments to 42 key management positions in both Head Office and Districts. The second stage was implemented with the appointment of administrative staff to Head Office and Districts and forest ranger staff to Districts.

The organisational structure has been simplified and streamlined by restructuring the three existing Divisions and six Director positions to four new Divisions, with all Director positions being abolished and Branch Managers now each reporting directly to a Divisional Head. The new Divisions are Production, Strategic Services, Technical Services and Corporate Services with the Head of each Division along with the Conservator of Forests forming the Executive.

The new Strategic Services Division brings together a number of functions that were either lacking or inappropriately placed in the old structure. It is small in size but will necessarily have considerable influence in determining the direction of the various functional units and the allocation of resources to the programs managed by those units.

Relatively few changes have been made to the existing groupings of Head Office functional units. Those which have the most significant impact are

- amalgamation of the Marketing and Resource functions;
- separation of Engineering Services from Forest Development;
- abandoning the Management Services Branch and incorporating its functions into the Personnel and Strategic Services areas; and
- co-ordination of all training functions within the Personnel area.

The amalgamation of 10 Districts and 22 Sub-Districts into 13 District administrative units removes a further line in the decision making process. Major savings in infrastructure costs will flow from the restructuring of the Head Office and District administration.

The two existing Regional Directors will continue to service the State.

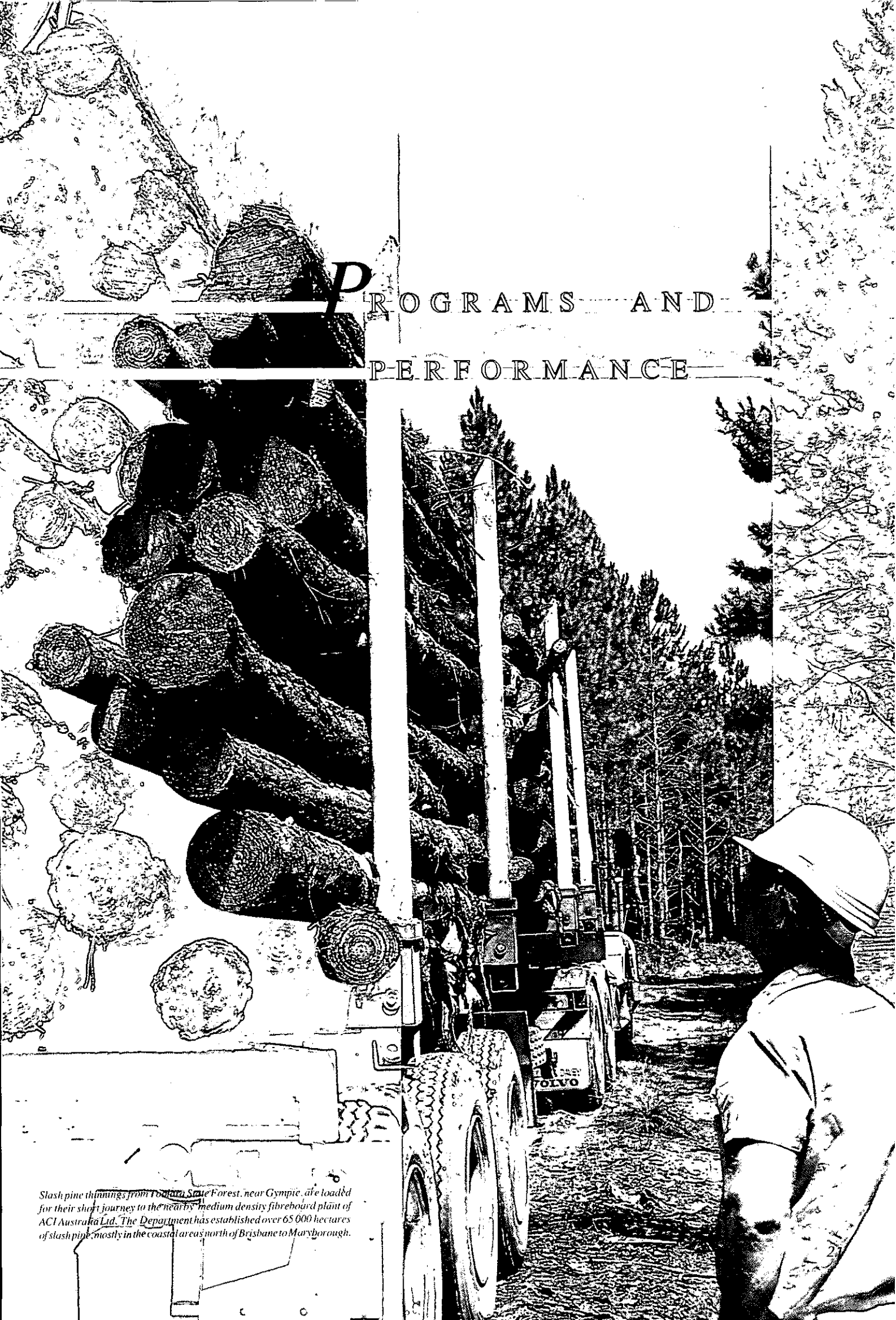
As a result of the restructure and the policy of not filling other than essential vacancies, salaried staff reductions have been quite substantial. The number of salaried staff employed in the Department as at 30 June 1989 was 560, representing a 14.6% reduction on establishment (see Appendix 15.). These reductions were achieved through natural attrition and efficient personnel management. The efficient and effective allocation of staff throughout work units is now a continuing function of the new Management Audit and Review Branch.



**As yet a formal strategic plan has not been submitted to the Minister for approval, but matters relevant to its formulation are before the Cabinet Committees for determination and negotiations with Treasury Officers are continuing. The Department is confident that finalisation of the formal plan will quickly follow completion of these negotiations.**

In the meantime, the strategic planning process is well advanced within the Department. Significant achievements to date are

- completion of internal and external information gathering;
- determination of the organisation's direction and formulation of its purpose and goal statement;
- drafting and circulation for comment of the goals, strategies and objectives of five of the six programs;
- Government endorsement of the program structure;
- a detailed analysis of funding arrangements and debt management strategies for the organisation;
- implementation of the major components of strategic management through a combination of structural review and the establishment of financial and non-financial information systems to enable monitoring of program performance; and
- the continued rigorous pursuit of performance indicator design and development.



**P**ROGRAMS AND  
PERFORMANCE

*Slash pine thinnings from Toobara State Forest, near Gympie, are loaded for their short journey to the nearby medium density fibreboard plant of ACI Australia Ltd. The Department has established over 65 000 hectares of slash pine, mostly in the coastal areas north of Brisbane to Maryborough.*

# Native forest production

*"Native forest production activities are conservative in the true sense of the word, because the forest resource on which production is based is renewable and can be sustained to meet the needs of both present and future generations."*



*Forest Overseer Jeff Ihle marks a blackbutt that has suppressed stem growth, in readiness for the next commercial thinning of this stand on Fraser Island. This site was completely logged between 1928 and 1931, and then burnt. As a result of natural seedfall prior to and during that operation, there was prolific regeneration. The site has been commercially thinned three times since 1931 and is currently carrying 320 m<sup>3</sup> of timber per hectare.*





**Over the last few years Australia has witnessed an upward trend in demand for forest products. In order to meet this demand, there has been an increase in the overall timber removals from the nation's forests each year.**

Paralleling this trend is increasing pressure from some elements of the community for the withdrawal of native forest areas from production management.

While the Department is primarily concerned with the management of State Forests for the purpose of producing timber and associated products, it is also responsible for ensuring the proper management of other values of the forest estate, including protection of the environment and recreational and grazing uses.

Thus, in a climate where demand for timber products is increasing and areas available for production management are decreasing, the skills of forest managers are being strenuously tested.

The Department's Native Forest Production Program covers the management of production and sale of timber and timber products from State Forests. Native forest types and species yield a wide variety of commercial timber products including plylogs, sawlogs, power poles, girders, sleepers and fencing materials. However, overriding considerations such as conservation, environmental protection and multiple use issues limit any attempts to manage the Program on a fully commercial basis.

Native forest production activities are conservative in the true sense of the word, because the forest resource on which production is based is renewable and can be sustained to meet the needs of both present and future generations.

Forest managers in the Native Forest Production Program have both the professional knowledge to implement conservative production management procedures and an understanding of the capacity of the forest as a provider of a broad spectrum of intangible benefits. They are also motivated by a number of basic beliefs, most important being a concern for the continued well being of the forest environment.

### **Financial Performance**

The introduction of Program Budgeting has for the first time enabled the linking of revenue and expenditure with the major activities of the Native Forest Production Program.

This will assist greatly in working towards the achievement of the Program's key financial goal, which states "...annual revenues must exceed annual costs, including those associated with research, protection, maintenance and marketing".

It is evident however, that expenditure currently exceeds revenues by a wide margin in all Sub-Programs. The following table shows the financial performance for the year under review.

<b>Sub-Program</b>	<b>Expenditure</b>	<b>Revenues</b>
	\$	\$
Cypress	4 116 353	1 919 482
Hardwood	5 717 299	3 963 352
Rainforest	1 529 639	614 804
<b>Total</b>	<b>11 363 291</b>	<b>6 497 638</b>

This shortfall indicates the necessity for cost reduction and revenue improvement. Action is currently in hand in both areas, with the introduction of efficiencies to deal with cost issues in the marketing area and the examination of all operational procedures for effectiveness. Fire protection preparedness will be given special attention as this area has a major influence on the structure of management costs in native forests.

Revenue level is currently under examination. Negotiations are proceeding with the industry regarding substantial real increases in royalty charges.

However, even with the application of rigorous financial enhancement measures, it is unlikely expenditure and revenue in this Program can be brought into balance in the short term. Management of native forests, by its very nature, leads to intangible benefits which cannot be accounted for in a commercial sense. These uncostered social benefits include fire protection and fire hazard reduction, water catchment and landscape protection, wildlife habitat and complementary nature conservation, decentralisation of industry and economic support for rural/provincial communities. Provision of these benefits addresses broader government, social, economic and developmental objectives and as such is funded as a subsidy to the commercial production program in native forests.

Two particularly important and inter-related components of native forest management are controlled harvesting, within the principle of sustainable yield, and silviculture. Integral to both is 'treemarking' which is broadly applied on State Forests and those Crown lands identified as potential State Forests. In this process trees to be harvested are marked by a forest officer to identify the overmature, mature and thinnings components to be removed in a particular operation, while selected growing stock are conserved for future yields.

For several decades silviculture has involved the thinning of regenerated stands, following the initial logging operation, to enable growth to concentrate on selected prime stems. This process is termed silvicultural 'treatment'.

Both treemarking and silvicultural treatment involve an investment in the forest products harvest of the future. The costs of these future oriented operations are included within the Sub-Program expenditure figures.

### **Overall Performance**

There was a dramatic decrease in rainforest timber removals because of the World Heritage listing of the wet tropics of north-east Queensland, while a reduction in native hoop pine removals reflected the planned phase down in this area.

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There are now 92 wood processing companies in Queensland dependent on the native forest resource of our State Forests for milling timber supplies. To assist in the development and long term viability of these enterprises, the Department has in many cases entered into 20-year-guaranteed supply agreements. This year some 433 000 m<sup>3</sup> of native milling timber was allocated to Queensland sawmills for logging on a sustained yield basis.

The Department continues to seek opportunities for reductions in selling costs and improvements in logging efficiency. Wherever possible the use of weight scaling in the sale of timber is encouraged, and a large proportion of cypress pine sawlogs is now sold in this way. In addition, a significant proportion of hardwood sawlogs in south-east Queensland is now measured in the sawmill yard, rather than at stump in the bush. Further possibilities for improvement are being investigated, including area pricing of hardwoods and sale by statutory declaration.

Forest silviculture is a very important part of the Department's management responsibilities as it ensures a continued improvement of productivity and the adequate regeneration of the native forest. Work programs this year included silvicultural treatment of 3 645 hectares of native forest, enrichment planting on 165 hectares and top disposal burning of 2 462 hectares.

While timber production is the primary aim of management on State Forests, the multiple use management concept ensures provision of a range of important community benefits.

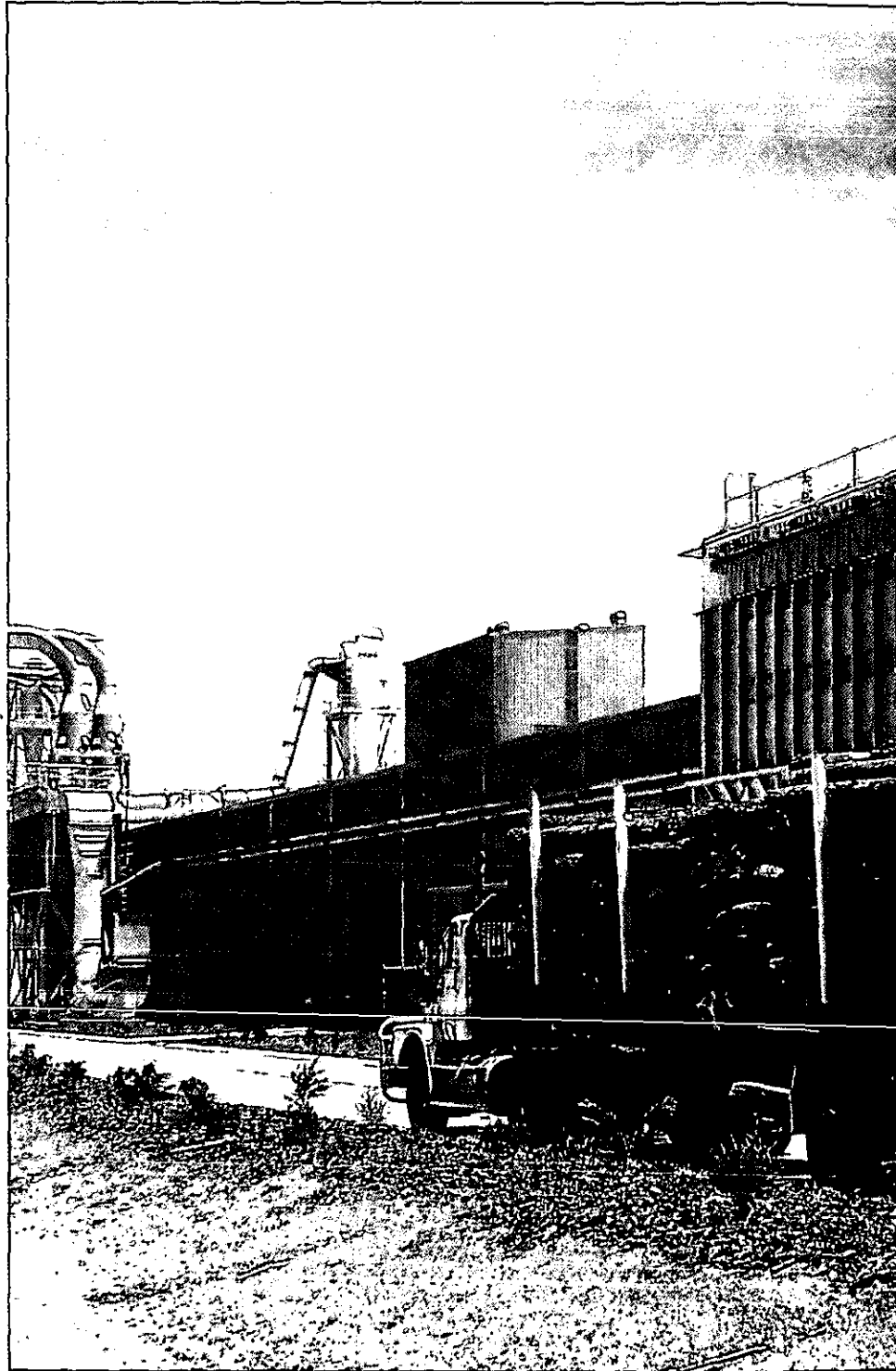
These benefits flow through in various ways. The leasing of State Forest areas for apiary sites for honey production returned \$111 361 for 1988-89, while permit livestock grazing returned \$184 324. A less tangible benefit is the major contribution to conservation through the maintenance of forest cover in the 4 513 367 hectares of State Forest and Timber Reserve. Large tracts of undisturbed or rarely disturbed land ensure the continued protection of the State's forest flora and fauna and their habitats. Multiple use management of native forests is achieved through Management Priority Area Zoning (MPA Zoning), a management procedure in which the primary attributes of each forest area are determined and assigned an optimal combination of compatible uses.

MPA Zoning is one of the principal components of the Department's 49 State Forest Group Management Plans, currently in various stages of preparation.

Under MPA Zoning management areas may be delineated as either Feature Protection Areas - recognising the significant scenic, aesthetic, cultural and/or historic importance of the area, or Scientific Areas - where adequate and viable samples of major natural, biological, geological and edaphic associations or occurrences are preserved for scientific reference and study.

This year another Feature Protection Area was gazetted, bringing the total to 95. Scientific Areas now total 55, after gazettal of another 4 such areas this year.

*"Queensland now has 30 wood processing companies based directly on the plantation resource."*



*The ACI Australia Ltd factory at Toolara, near Gympie, relies on slash pine thinnings from the Department's plantations to produce its medium density fibreboard, Craftwood. The recently commissioned factory expects to process up to 300 000 m<sup>3</sup> per year when fully operational.*



**The goals of the Plantation Production Program relate specifically to establishing and maintaining a plantation resource sufficient to sustain an efficient and viable timber industry in Queensland, and to the management of that resource in an environmentally and financially responsible manner.**

The Program has been a major success with the establishment of more than 169 000 hectares of plantations since the early 1920s.

The first plantations established were the hoop pine plantations of the Yarraman and Imbil areas of south-east Queensland. Those and subsequent plantings are now considered to be some of the finest manmade forests in the world. They are widely acclaimed not only for their timber productivity but also for their great natural beauty.

Subsequently, plantations of the more adaptable exotic pines were established on south-eastern coastal areas to make up in part for the production deficits of our native forest and in an attempt to meet the future timber needs of the State.

Procedures used in establishing and maintaining this substantial resource are based on an ongoing research and development program, for which the Department of Forestry has established an international reputation. Departmental officers are highly respected for their wide range of skills and expertise in tropical and subtropical plantation management.

Queensland now has 30 wood processing companies based directly on the plantation resource. The three largest process a total of more than 400 000 m<sup>3</sup> per year. Thus, the Program generates employment in many decentralised areas of the State in both the public and private sector.

### **Financial Performance**

With increasing pressures on forests and on production in particular, this Program continues to work towards its goals of establishing, maintaining and harvesting plantations within set environmental guidelines, whilst at the same time aiming for a minimum real rate of return of 3% on invested funds.

Plantation forestry is characterised by a long production cycle and with the Department's Plantation Production Program still in its development phase annual costs are significantly in excess of annual revenue.

<b>Sub-Program</b>	<b>Expenditure</b>	<b>Revenue</b>
	\$	\$
Exotic	27 072 292	11 798 778
Native	10 937 189	10 927 168
<b>Total</b>	<b>38 009 481</b>	<b>22 725 946</b>

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While the financial goal of the Program is to maximise the rate of return on investment and, as a minimum, ensure a real rate of return of 3% on funds invested, the appropriate performance measure is not whether annual revenues are presently in excess of annual costs but whether the long term real rate of return on investments will exceed 3%.

From next year the concept of plantation valuation will be incorporated into the financial accounts of the Plantation Production Program. This recognises the fact that the Department's plantations are an extremely valuable State asset - an asset which grows both in volume and value over time.

The Department's financial accounts will then reflect not only the revenue generated by the Program over the accounts period but also the unrealised income arising over that period as a result of the capital appreciation of the plantation asset base.

Revenue generation will be affected in the short term by traditional cyclical buoyancy in the timber processing industry. An averaging system will be used to smooth the rate of return over longer periods so periodic lows or highs do not mask real earning power.

Expenditure and revenue flows are anticipated to break even by 1998 with the winding down of the development phase of the plantation estate. From then on the Program will be a net revenue earner and is expected to generate substantial revenues for payment of dividends to the State Treasury. These dividends will provide a monetary return to the State on the funds which have been invested in the Plantation Program over the past 50 years. The Program has of course yielded many other substantial returns in the areas of employment and industry development since its commencement.

The industry development goal has been achieved progressively through the commitment of the valuable final crop harvest from a number of large plantation centres to long term industry sale agreements. Significant private sector investment in the wood processing industry in this State has occurred in recent years with the trend continuing in this current year.

## **Overall Performance**

An additional 597 hectares of hoop pine and 5 528 hectares of exotic pine were planted during the year. Of this area, first rotation plantings contributed 5 508 hectares, and second rotation 617 hectares.

The adoption of a number of cost saving strategies has contributed significantly to work efficiency, while still maintaining the Department's high management standards. These strategies include

- Increased use and continued enhancement of mechanised techniques, particularly for site preparation.
- Expanded plantings of slash/Caribbean hybrid pine on lower slope and swamp sites in south-east Queensland as greater quantities of seed from the operational controlled pollination program have become available. This first generation Pinus hybrid has a far higher survival rate and an improved wind firmness over the Caribbean pine, and a greater growth rate than the slash pine, originally planted on these sites.
- Further rationalisation of Departmental nurseries and improved cold storage transport of seedlings has increased economies of scale and improved efficiencies in the production and distribution of seedlings for planting programs.
- Continued improvements in weed control procedures along with the adoption of new herbicides where applicable.
- Use of pole saws for both ground and carry-up pruning in preference to chainsaws, handsaws and ladders.
- A successful active tree breeding program has brought about improved tree vigour and form thereby permitting lower initial stockings at planting and reducing the need for pre-commercial thinning.
- Reductions in the workforce through natural attrition and use of short term contract employment where cost effective.

The plantation estate is now the major source of log supply for Queensland's wood processing industries, supplying 60% of the total Crown supply of milling timber and pulpwood in 1988-89.

The 30 wood processing companies dependent on Queensland's plantation estate produce a range of wood products including particleboard, sawn timber, medium density fibreboard, veneer, plywood and treated roundwood.

Many of these companies are large employers in regional areas of Queensland and for this reason, and to encourage their continued viability, the Department provides resource security through 20 year guaranteed supply agreements. In 1988-89, a product supply of 1 178 779 m<sup>3</sup> was guaranteed, an increase of 114 330 m<sup>3</sup> over the previous year.

#### Supply Guarantees to Queensland Wood Processing Industries

Product	1988-89 m <sup>3</sup>	1987-88 m <sup>3</sup>
Pulpwood and roundwood	461 530	460 370
Sawlogs from thinnings	255 719	224 549
Final crop sawlogs	461 530	379 530
<b>Total</b>	<b>1 178 779</b>	<b>1 064 449</b>

Timber removals from the plantation estate have increased from 497 353 m<sup>3</sup> in 1987-88 to 647 324 m<sup>3</sup> this year.

Significant activities in this area include

- Opening of the ACI Australia Ltd medium density fibreboard plant on Toolara State Forest near Gympie. At full capacity this plant will process 300 000 m<sup>3</sup> of pulpwood thinnings per year from Tuan and Toolara State Forests.
- Commencement of the ACI Australia Ltd sawmill and veneer plant at Imbil. When operational this plant will process over 90 000 m<sup>3</sup> of hoop pine per year from the Imbil and Murgon District plantations.
- Commencement of Stage 2 of the Hyne and Sons sawmill complex at Tuan. Stage 1 comprised drying kilns and associated drymill. Stage 2 will see completion of the log yard and modern green milling complex to eventually process in excess of 200 000 m<sup>3</sup> of exotic pine per year from Departmental plantations at Tuan and Toolara.
- Conversion of part of Plywood and Plastics Pty Ltd's rainforest sawmill at Ravenshoe to enable processing of upwards of 16 000 m<sup>3</sup> of plantation pine per year from the Atherton Tablelands and Kuranda.

Most of the plantation grown timber currently available is committed to existing or planned wood processing plants. Continued expansion of the plantation based industry is anticipated as the plantation estate matures.



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A number of 'spot' sales to dispose of small parcels of plantation timber surplus to entitlements were offered during the year. Sales included thinnings and final crop from Beerburrum, Byfield, Imbil and Murgon.

This year negotiations continued with the sugar industry over their land use requirements on State Forests in the Ingham, Bundaberg and Maryborough regions.

Damage to the plantation estate came in various forms throughout the year

- On 22 October 1988 a fire, thought to be deliberately lit, burnt out about 37 hectares of 12 year old exotic pine plantation at Beerburrum. Weather conditions were extreme on the day, however local staff were able to keep the area burnt to a minimum. Resultant salvage operations required the logging of 2 900 m<sup>3</sup> of timber.
- In March 1989 Cyclone Aivu caused wind throw in the Cathu plantations south of Proserpine. Salvage operations are expected to yield 20 000 m<sup>3</sup> of log timber.
- Strong winds in April 1989 affected about 30% of the Passchendaele plantations near Stanthorpe, requiring the salvage over 12 months of 20 000 m<sup>3</sup> of timber.
- Also in April 1989, abnormally high rainfall for south-east Queensland caused extensive damage to roads and bridges within the Imbil and Murgon Districts. Flash flooding of Little Yabba Creek caused the loss of seedling stock at the Kenilworth Nursery.

*"The Program has provided many opportunities for the timber industry in Queensland from which numerous processing plants draw supplies."*



*Sawmills such as this one at Woodford, north of Brisbane, process much of the hardwood timber harvested under the Department's Other Crown Land Sales Program. Many State-owned land holdings are well-endowed with native timbers which, under careful Departmental supervision, can be harvested to provide a variety of forest products for the community.*



**The Other Crown Land Sales Program is responsible for the harvesting of forest products from those native forests growing on Crown land other than State Forests. Harvesting must take place in accordance with long term community requirements and in an efficient, effective and environmentally responsible manner.**

Under the Forestry Act the Department's role in these forests is to ensure the effective utilisation of the timber resource. It does not have any other management role in this area. The financial goals of the Program are set to ensure revenues exceed costs on a State-wide basis.

Forest products are produced under the Other Crown Land Sales Program including sawlogs, power poles, girders, sleepers and fencing timbers, providing a gross revenue from sales for 1988-89 of \$3 024 845.

The Program has provided many opportunities for the timber industry in Queensland from which numerous processing plants draw supplies.

#### **Financial Performance**

Program performance in terms of commitment to financial goals has been effective and most satisfactory this financial year.

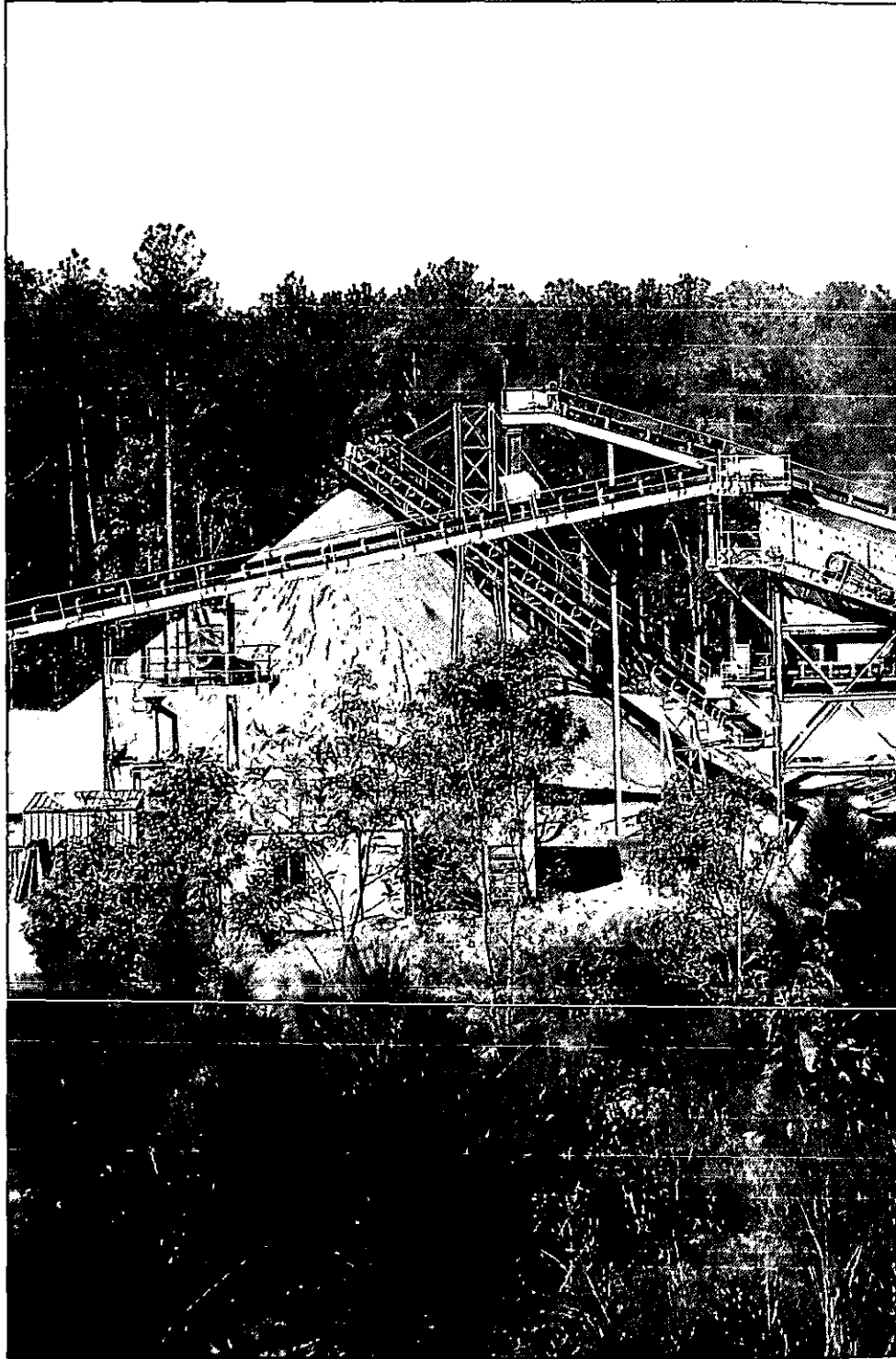
The Program now operates with the goal of maximising the excess of annual revenues over annual costs, and as a minimum, ensuring revenue equals costs for each Sub-Program. To this end the financial performance for 1988-89 was as follows

<b>Sub-Program</b>	<b>Expenditure</b>	<b>Revenue</b>
	\$	\$
Cypress	397 607	1 058 512
Hardwood	1 312 342	1 512 127
Sandalwood	197 020	453 846
<b>Total</b>	<b>1 906 969</b>	<b>3 024 845</b>

Interestingly, sandalwood is the most valuable of all Queensland timbers, and is prized for its aromatic properties on the Chinese and South-East Asian markets. Sandalwood is harvested in small quantities from Crown land in the western areas of central and north Queensland.

The program of timber valuation on Crown leasehold lands for conversion of tenure to freehold continued, with 141 new applications covering 889 757 hectares.

*"All quarries will therefore be required to operate under approved working plans covering both the conduct of quarrying operations and the rehabilitation of the quarry site."*



*A quarry site in the middle of a forest plantation may sound incongruous, but careful environmental safeguards ensure a safe and profitable operation. This site in Beerburrum State Forest, north of Brisbane, is operated by Sunrock Quarries, who remove over 450 000 m<sup>3</sup> of material per year.*



As well as playing a major role in supplying forest products to Queensland's timber industry, the Department has become a significant supplier of quarry materials. In 1988-89 approximately 1 618 448 m<sup>3</sup> of quarry materials were removed from operational quarries on Crown lands throughout Queensland, providing a gross revenue of \$1 127 425.

As quarrying operations are often incompatible with other potential State Forest uses, such as timber production and recreation, the Department has naturally sought to minimise the number of quarry sites on lands reserved as State Forest. However, quarry materials are vital for the State's continued development and the Department recognises the need to respond positively to this situation, particularly in areas where such materials are unavailable on non-State Forest sites.

Under the Program there are strict requirements for all operations to take place under approved environmental standards. All quarries will therefore be required to operate under approved working plans covering both the conduct of quarrying operations and the rehabilitation of each quarry site.

#### **Financial Performance**

The key financial goal of the Quarry Material Sales Program is for annual revenue to cover annual costs on a State-wide basis. For the period under review the Program achieved that goal. Expenditure and revenue for 1988-89 was as follows

<b>Program</b>	<b>Expenditure</b>	<b>Revenue</b>
	\$	\$
Quarry Material Sales	363 412	1 127 425

#### **Overall Performance**

Over recent years there has been an increasing demand for quarry materials from Crown land. The growth in commercial and tourism development, particularly along the coastal strips from Port Douglas to Ingham and Noosa to Coolangatta, has had a significant impact on demand, particularly for construction grade aggregate. To satisfy this demand a number of large-scale hard rock quarries have been developed on Crown land in these areas.

This year has seen a significant increase in demand for granite dimensional stone. A number of companies have subsequently taken 'permits to search' for the stone in south-east Queensland and around Chillagoe, Mount Surprise and Mount Isa in the north and west of the State. In addition, quarrying operations for black granite have commenced in an area near Mount Isa.

*"...the Forest Services Program has now adopted, where practicable, the 'user pays' principle..."*

**With the implementation of Program Budgeting the Forest Services Program has now adopted, where practicable, the 'user pays' principle. Full Government funding continues for regulatory services or for those services which the Department provides for the public as a matter of Government policy, and where it is not practicable to apply the 'user pays' principle.**

Although a discrete entity within the Department's program structure, the Forest Services Program has been divided into several areas of specialised endeavour to facilitate efficient management practices.



## RECREATION SUB-PROGRAM

*Goldborough Valley State Forest Park, on the Atherton Tableland in North Queensland, provides an ideal spot for a family to enjoy peaceful natural surroundings. The Department manages 60 State Forest Parks, each with facilities that encourage the public to explore and learn about the many benefits well managed forests can provide.*

With our society spending more and more time in the active pursuit of leisure, there has arisen an unprecedented demand for nature based leisure activities. Here in Queensland, the Department's Recreation Sub-Program is assisting in meeting this demand by continually upgrading and developing forest based recreational opportunities throughout the State.

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In 1988-89, the Department spent about \$3 000 000 on its Recreation Sub-Program. This provided about 1 200 000 day trips and 400 000 overnight stays for visitors using Forestry facilities. Regional economies also benefited from multiplier effects, for example, campers buying food from towns near camping grounds. Demand and expenditure are certain to rise over the next few years.

The Department recognises the general public requires quality nature based recreational opportunities and that, in many cases, it manages the land resource best able to meet those expectations.

Pursuits now available in the forests include pleasure driving, camping, picnicking, nature observation, bushwalking, horse riding, four wheel driving, orienteering, rafting, and canoeing. The Program also provides a range of recreation opportunities through more than 60 State Forest Parks, forest drives and interpretive trails strategically placed throughout the State.

In opening up the forest for community enjoyment, a 'window to the public' is established, with the benefits of good forest management within the principles of multiple use being clearly visible. Where possible the Department will encourage visitors to learn more about forests as providers of benefits other than recreation.

The presence of local field staff helps ensure recreation management integrates closely with a range of forest management activities including protection, harvesting, maintenance of access, silviculture and general administration of the Forestry Act. This integration provides for efficiencies in all services including recreation.

The Department is particularly keen to maintain its status as a major recreation provider in Queensland. However, increased usage and the demand for more and better services has meant it has had to implement a 'user pays' principle for some of the activities and services provided.

Under the Recreation Areas Management Act the Department has a joint management responsibility with the Department of Environment and Conservation for certain recreation areas established on public lands. The Act ensures a commitment from those agencies involved in recreation planning and management to the improvement of the range and quality of nature based recreation facilities. Fraser Island is the most significant of the recreation areas presently managed by the Recreation Areas Management Board.

Five years ago the Department, in conjunction with the Queensland Museum, opened WoodWorks, a Forestry and Timber Museum in Gympie, so the general public might have an insight into the early days of timber getting and sawmilling. WoodWorks has proved to be a very popular attraction, especially with school groups. That interest continues to grow with 14 207 visitors for the year.



## FOREST EXTENSION SUB-PROGRAM

Widespread publicity regarding the 'greenhouse effect' and the impact of twentieth century lifestyles on the environment has led to a heightened community awareness of the value of trees in protecting soils, maintaining water quality, wildlife habitats and stock shelters and reversing land degradation generally.

One of the primary functions of the Forest Extension Sub-Program is to ensure this awareness is maintained through a technical advisory service to the public on the value of trees and forests. Another is to encourage the development and sound management of private forest resources. A commitment to achieve both these objectives has established the Department as a primary source of land care information in Queensland.

The Forest Extension Sub-Program is a part of the Department's non-commercial Forest Services Program. It is involved in a number of initiatives aimed at combating land degradation and soil productivity decline - both of which are rapidly becoming the most serious problems confronting rural communities in Australia. Initiatives include land care videos, displays, education kits for schools and co-operative studies with other state and federal departments. It is likely this important area will receive increasing emphasis in the future.



*Field days on farms are a traditional method of extending Departmental agroforestry advice to rural audiences concerned about land degradation and the subsequent loss of productivity. Landholders are now realising that trees are an integral component of sustainable land use management.*



TREDAT (Tree Performance Data Bank) is another facility providing vital information for land holders. It was established to provide a computerised and easily accessible data base on tree planting projects and the performance of tree species throughout the state. TREDAT now has detailed information on more than 900 species on some 600 different sites and is providing valuable information to regional land care groups formed throughout the rural community.

For many years the Department has been involved in providing trees and tree advice to the rural community, earning a reputation as a valuable information source. Demand for information has increased dramatically in recent years as land degradation problems and rehabilitation needs receive greater public attention. Landholders are now realising trees are an integral component of sustainable land use management.

The Department is currently responsible for the management of two land rehabilitation projects funded by the Commonwealth Government under the National Afforestation Program.

- Memerambi Creek Catchment Project

Throughout the South Burnett Region there are about 3 000 hectares of salt affected farmlands. A demonstration project has been established at Memerambi Creek Catchment where the Department is using trees to increase transpirational water usage and thus lower water tables and prevent dryland seepage salting.

- Mundubbera Salinity Project

The Mundubbera Shire, a major citrus and grape growing area in the Burnett District is also suffering salinity problems. The Mundubbera Salinity Project will establish tree crops on salt affected sites and investigate the impact of these plantings on water movement, salinisation of discharge areas and soil stabilisation in the catchments.

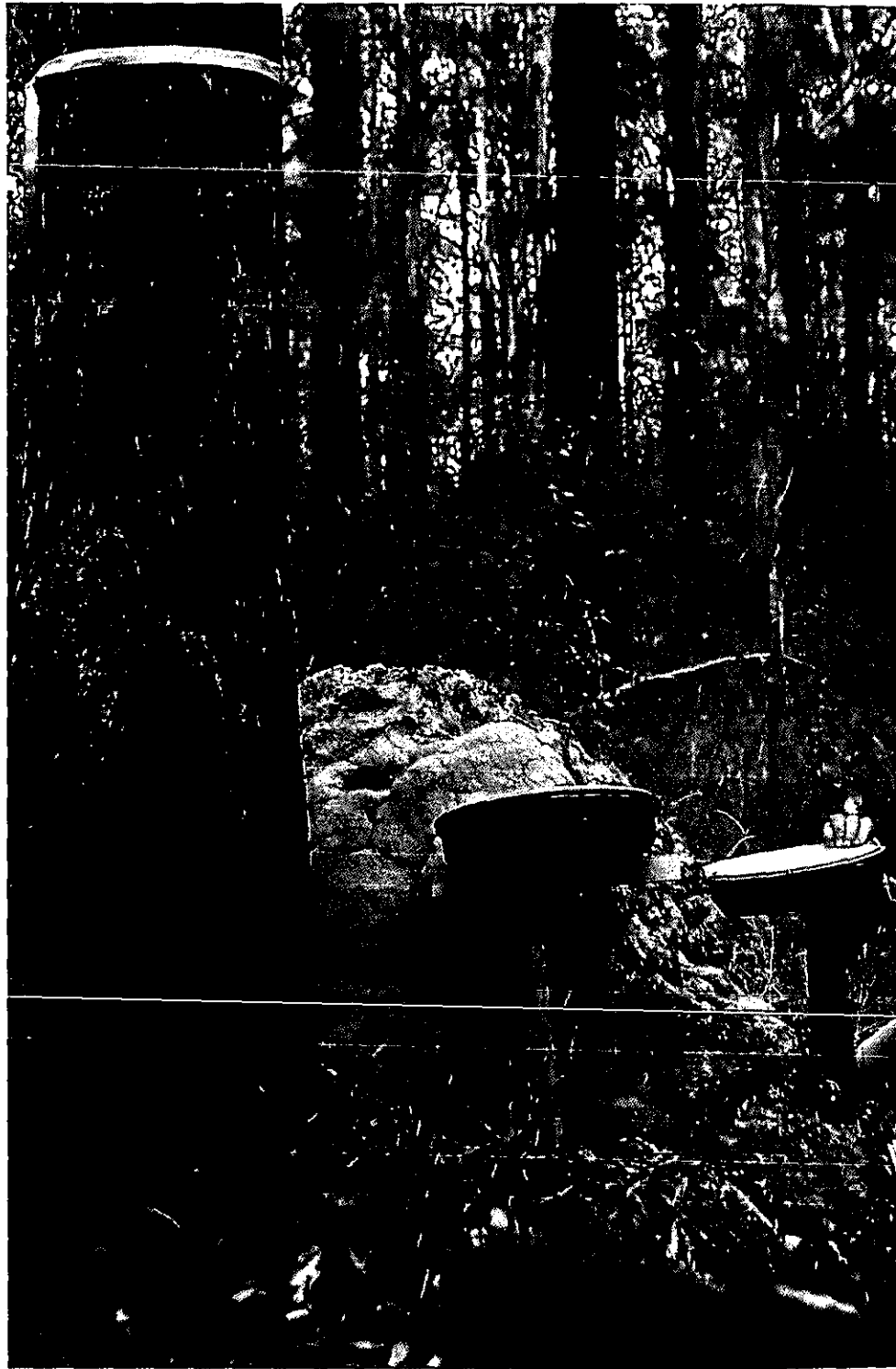
The Department is also involved in various rural based Land Care Committees which aim to stimulate understanding of land use problems and promote conservative land use practices throughout the local community.

In addition, the amenity nurseries at Bunya, Salisbury, Dalby, Toolara and Ingham provided 487 670 plants in 1988-89 to rural landholders, members of the public and for the Department's concessional planting scheme.

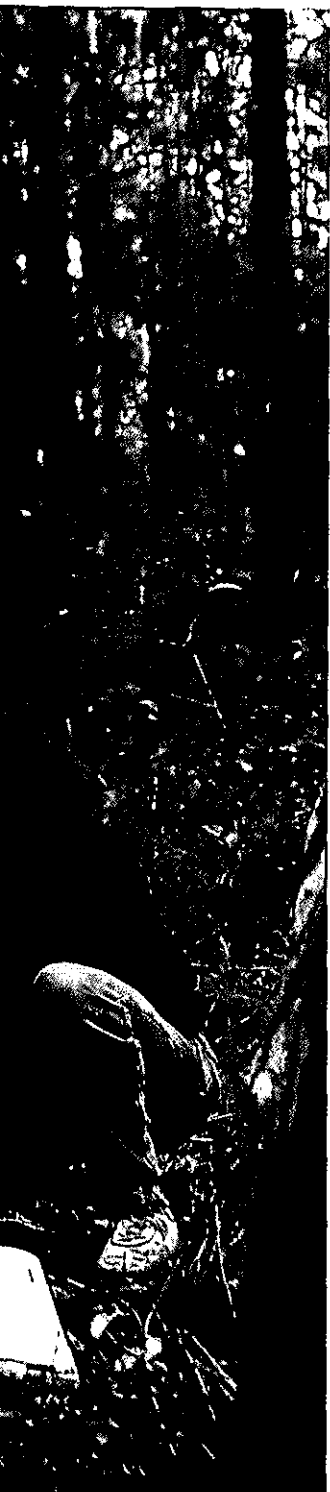
Seed collections under the Forest Extension Sub-Program met overseas and local demand for authenticated native tree seed and genetically improved Pinus plantation species seed. Receipts for sale of seed totalled \$130 270 for 1988-89.

Expenditure within the Forest Extension Sub-Program in 1988-89 totalled \$3 610 872 with the Department's commitment to expanding its services in this vital area limited only by the competing demands on Government funding.





*Timber technician Scott Kleinschmidt checks an experiment set up to determine the efficacy of using boric acid to treat slash pine timber against subterranean termite attack. The experiment, using naturally occurring termite mounds on a State Forest north of Caboolture, involves placing samples of treated pine blocks in plastic containers connected to several mounds by plastic tubing. Analysis will determine the toxic threshold level of boric acid necessary to protect pine framing from attack. It is thought that boric acid might someday prove to be an alternative to organochlorines.*



## TIMBER UTILISATION EXTENSION SUB-PROGRAM

While a large part of the Department's effort is directed at growing trees to help meet the State's increasing timber needs, the business of growing trees cannot be separated from the use of timber. In this regard it is important timber purchasers continue to regard wood as a cost effective, reliable and versatile material.

To this end the Department provides a large range of 'after market' services to ensure the community receives the maximum benefit from the State's timber resources. These services have now been combined to form the Timber Utilisation Extension Sub-Program providing

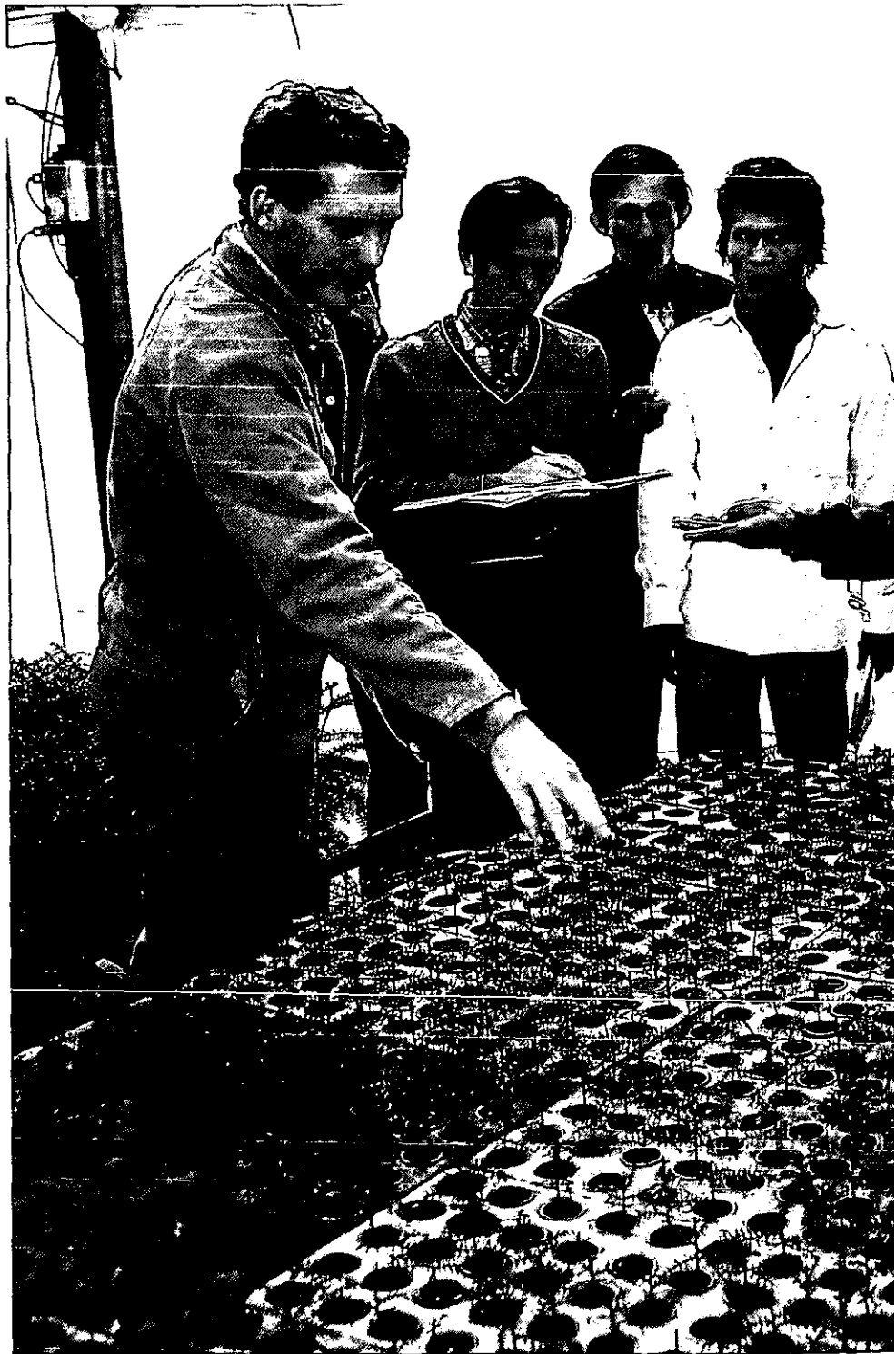
- research and advice on wood processing, seasoning and timber mechanics;
- wood chemistry and timber preservative studies and advice;
- identification and advice on timber pests and diseases;
- timber and root identification;
- timber inspection services where quality and deterioration problems relate to timber application; and
- a regulatory role to review timber specifications and standards and administer the Timber Utilisation and Marketing Act and the Diseases in Timber Act.

Under the mantle of recent program management initiatives the Department is intent on more effectively targeting all potential community and industry needs in relation to the properties and uses of timber. The goals of the Timber Utilisation Extension Sub-Program are therefore centred on facilitating the efficient and effective use and processing of timber and timber products. At the same time it is recognised that if the Department is to meet the public's growing expectation for services in this area a cost recovery 'fee for service' has to be applied wherever possible.

### Summary of Financial Performance

Sub-Program	Expenditure	Revenue
	\$	\$
Recreation	2 861 798	85 028
Forest Extension	3 610 872	707 794
Timber Utilisation Extension	819 385	83 436
Forest Entitlement Areas	43 296	60 513
Wet Tropics Non-Timber Management	940 018	-
<b>Total</b>	<b>8 275 369</b>	<b>936 771</b>

*"An essential goal of the program is to promote the Department as a skilled and professional consultant in a variety of forestry and forest products areas in both tropical and sub-tropical environments."*



*Although many of the Department's consultancy arrangements involve overseas assignments, Queensland-based consultancy services are also provided to people from all over the world. Here, nursery technician Malcolm Baxter addresses a group of Vietnamese foresters visiting the Department's Toolara nursery, in the heart of its exotic pine plantations between Gympie and Maryborough.*



**The professional skills and expertise of many Departmental officers are acknowledged as being amongst the best in the world. Together they form an excellent source of consultancy expertise capable of satisfying a potentially significant demand from outside the organisation.**

The Department has been supplying such expertise for some years, but with the implementation of program management principles the Consultancies Program now brings together all Departmental consultancy operations, both international and domestic, with specialist branches holding responsibility for their individual projects.

An essential goal of the program is to promote the Department as a skilled and professional consultant in a variety of forestry and forest products areas in both tropical and sub-tropical environments. The benefits of the Program are widespread. Staff experience is broadened and expertise often enhanced. Involvement in overseas consultancies contributes to the international reputation of both the Department and the State. And of course, State finances also benefit through the revenue received from our consultancy projects. In this regard, it is estimated approximately US \$1 billion is available on a world wide basis each year for forestry development projects through various donor countries and programs. In 1988-89 the Department was able to tap into this market to a value of \$2 161 929 in revenue return, as against an expenditure for the year of \$1 886 146.

During the year the Department continued in its managing agency role for the Australian International Development Assistance Bureau's Dongmen State Forest Farm Eucalypt Afforestation Project in the People's Republic of China. A number of other short term consultancies also took place in the People's Republic of China, Indonesia, Solomon Islands and Zimbabwe. There are also a number of projects currently underway within the State.

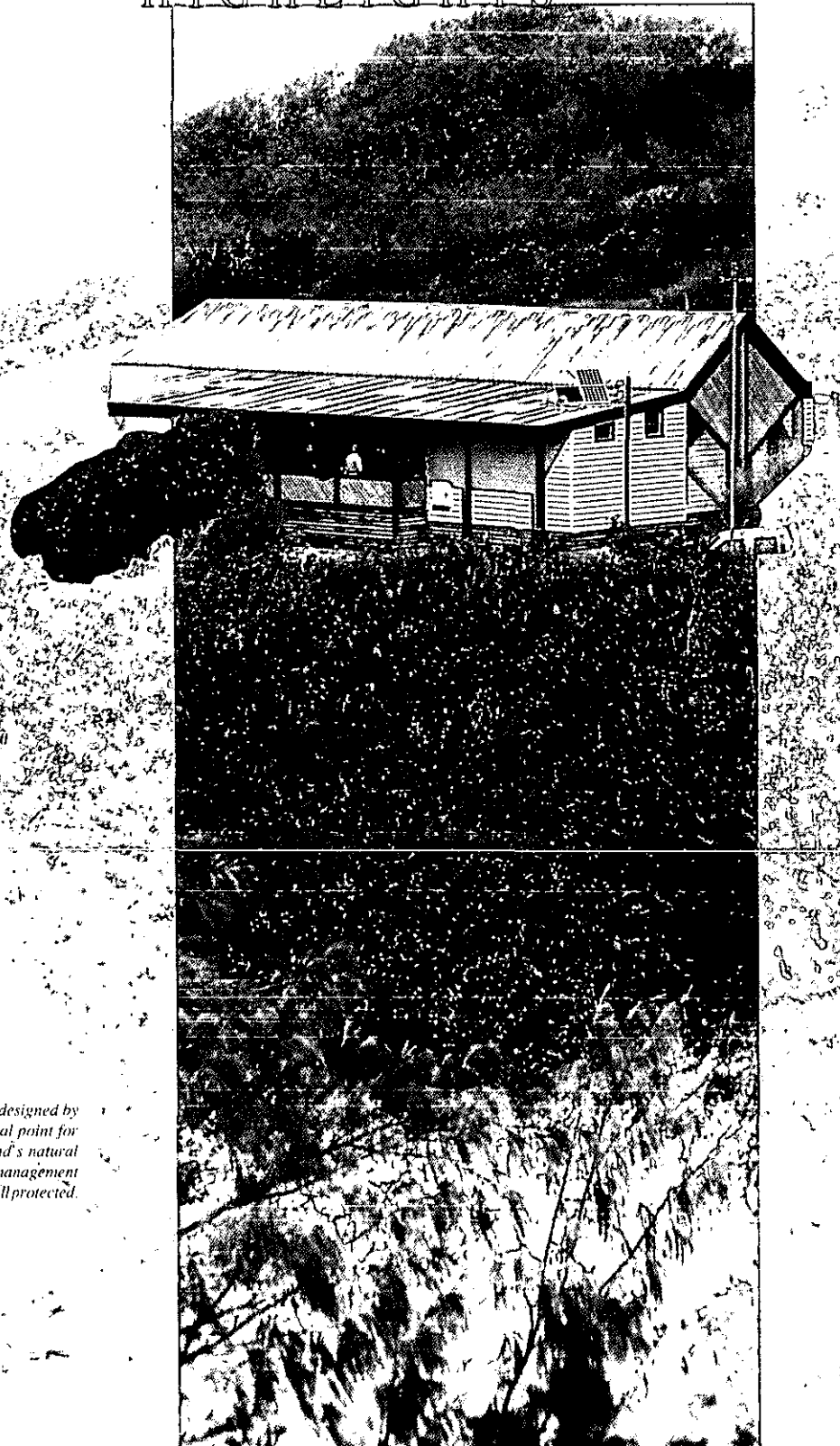
The goals of the Program include a commitment to actively market Departmental expertise and innovations to organisations and bodies worldwide. However, the resources available to the Program are normally employed in other core Departmental programs. Consultancy projects are therefore encouraged, provided they do not impact on the achievement of other program goals or reduce the capacity of the Department to achieve its wider purposes and goals.

#### **Financial Performance**

The Consultancies Program aims for revenue to exceed costs by at least 10% on an individual project basis. To this end in the first year of operation under program management principles the excess of revenue over cost for the whole program was \$275 783 or 14.6% of total costs.

<b>Expenditure</b>	<b>Revenue</b>	<b>Excess</b>
	\$	\$
1 886 146	2 161 929	14.6%

# O R G A N I S A T I O N A L H I G H L I G H T S



*The new Fraser Island interpretive centre at Eurong, designed by the Department's Engineering section, provides a focal point for visitors. Internal displays explain aspects of the island's natural history, and describe the ways in which modern forest management practices ensure that the area's unique environment is well protected.*

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## **RETIREMENT OF CONSERVATOR OF FORESTS**

John Kelly retired as Conservator of Forests on 20 July 1988 after 41 years with the Department.

Mr Kelly began his career as a cadet forester with the Department in 1947. By 1964 he was Regional Forester, Brisbane. His personal approach with trainees and cadets is remembered by all those he assisted. He was appointed Divisional Director of Operations in 1979, Deputy Conservator in 1982 and Conservator in 1985.

Mr Kelly is highly respected by his many associates in the forestry industry for his professional approach to his work. His ability to think through problems quickly and thoroughly won him the admiration of colleagues throughout his career. During his 41 years in the Department he was a good friend to many staff. All wish him well in his retirement

## **OWNERSHIP CHANGES IN WOOD PROCESSING INDUSTRY**

This year has seen major changes in the ownership of a number of wood processing companies in Queensland.

The Boral group has purchased nine hardwood sawmills throughout southern and central Queensland which together hold over 40% of the State's Crown hardwood timber allocation.

CSR Softwoods (Qld) has increased its holdings with the purchase of two softwood sawmills at Caboolture and Benarkin giving it an entitlement to plantation hoop pine and exotic pine thinnings and final crop materials totalling over 120 000m<sup>3</sup>.

## **CONSULTANCIES**

*With the implementation of program management principles, consultancies now hold program status and have adopted a relatively high profile within the Department. The Consultancies Program brings together all Departmental consultancy operations, both international and domestic, with specialist branches holding responsibility for their individual projects.*



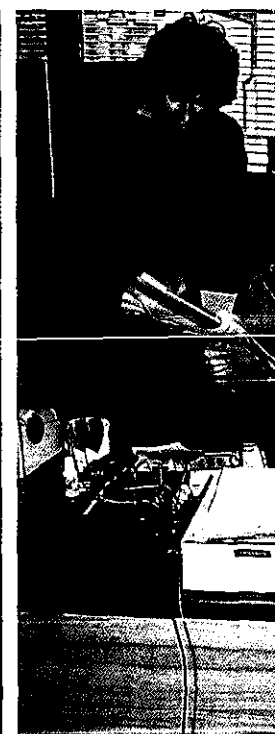
(top left): Senior Zoologist John Kehl uses a radio direction finder to locate the habitat trees of radio-tagged greater gliders at Wongi State Forest, near Maryborough. This research program, now in its fifth year, is one of many which analyse the effects of forest management practices on native wildlife.



(top right): A range of consultancy assignments returned over \$2 million in revenue to the Department during the year. One of the more unusual assignments was advising Queensland Railways of a cost-effective maintenance plan for its timber bridges, such as this one at Kitty Creek north of Mackay.



(bottom left): Administrative Assistant Peggy Casson helps a customer at the Department's head office publication sales counter. Posters, maps and booklets are designed to increase the public's knowledge of their State Forests, and to appreciate the many benefits provided by the Department's management practices.



(bottom right): Accurate and timely information presentation and retrieval is vital to the Department's operations. Continuing upgrading of on-line networking allows Clerk Michelle Jones (standing) and Administrative Assistant Cherie Fazullin to access appropriate data banks with state-of-the-art efficiency.





The following are some of the projects underway at present, most extend over a two to five year period.

#### ' Pinetech' - softwood treatment research

'Pinetech' is the company formed by a group of softwood treatment companies to fund research on pine treatment. The project is being undertaken on their behalf by the Department.

A chemistry graduate has been employed, with the thrust of research to date being the development of pressurised steaming schedules to enhance pre-treatment drying.

#### Evaluation of novel chemical treatments

Increasing concern for the environment has led major international chemical companies to develop a range of chemicals formulated to prevent sap-stain. As a follow up, some of these companies have now commissioned the Department to undertake extensive field trials to test and evaluate their formulations.

Trials so far have included the testing of sixteen formulations on sawn timber, with boards being dipped in the candidate chemicals and then stacked to dry; and nine formulations sprayed on round logs after debarking. Results have provided chemical companies with essential information on the formulations effective in protecting timber.

#### Studies to help save timber railway bridges

Queensland Railways has a total of 100 km of timber bridges throughout the state, some with components which have been in place since late last century. Wanting to retain these bridges, but being aware of the current high costs of maintenance, Queensland Railways has commissioned the Department to undertake a study which will address the following issues

- specification and availability of timber for bridge components;
- assessment of preservative treatment systems for new and existing structures;
- alternative construction details to improve durability and reduce maintenance; and
- installation and monitoring of trials on the proposed preservative systems.

Marketing the professional expertise of Department of Forestry officers is a continuing objective, and recognises the important benefits of the Consultancy Program to both the organisation and the State.

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## **WOOD TECHNOLOGY LECTURES**

The Department's public information program continued this year with a series of short lecture courses on wood technology. Furniture makers, Local Government building surveyors, timber processors (seasoning and preservation) and timber specifiers (architects and engineers) took part in the lecture series which covered the basics of wood technology and how to process and use wood effectively and efficiently.

In addition, courses to assist in the specification and design of timber cross arms and poles for power transmission lines were presented to staff of the Queensland Electricity Commission and the Electricity Regional Boards.

## **MANAGEMENT PLAN FOR NORTH-EAST WET TROPICAL FORESTS**

During the year Tom Just, a senior forester in the Department, was appointed leader of a Cabinet approved State Government Task Force to develop a management plan for Queensland's north-east wet tropical forests.

Rapidly increasing national and international attention on the region has accelerated the need to provide a comprehensive and environmentally sympathetic management strategy.

Using the guidelines set out in the Cabinet approved document *A strategic plan to manage the wet tropical forests of north-east Queensland*, the Task Force is studying a planning area which covers the rainforests and their fringing tall eucalypt forests on Crown land between Townsville and Cooktown.

Submissions have been sought from all relevant Government departments and agencies, local authorities, special interest groups and the general public. These are currently being evaluated by the Task Force.

It is expected that a management plan will be developed and well into its implementation phase by early next year.

## **IMPROVED CENSUSING OF BATS**

A technique for identifying bats by species, at night and in the wild has been devised by Chris Corben, a zoologist at the Department's Indooroopilly research laboratory.

It has always been difficult to identify species and estimate populations in habitat areas as bats are nocturnal and secretive creatures. Traditional census methods have relied on trapping and shooting for collecting data, a time-consuming and 'hit and miss' operation.

Now bats can be identified by pointing a sensitive microphone in the general direction to be surveyed. Ultrasonic bat calls are received and processed through a portable computer with specialised interface hardware and with dedicated software that can both store and display graphical representations of the bat calls.

These are then matched with previously identified graphs of known species, giving the field scientist an instant identification tool. Alternatively, audiotapes can be made in the field and played back through an appropriately modified laboratory computer.

The technique was developed to simplify monitoring of effects of forest management practices on tree-dwelling insectivorous bats. In field trials in the Conondale Ranges, 11 of the area's 13 known species of bats were identified without recourse to time consuming trapping.

The Department is now considering marketing the system commercially as it is certain to be of great value to zoological researchers elsewhere.

## **SUCCESS IN TRIALS OF LIQUID APPLICATION OF FERTILISER**

With the aim of reducing fertiliser application costs and improving year round usage of the Departmental tractor fleet, trials were conducted during the year into the feasibility of applying liquid fertilizer to newly established exotic pine plantations.

In the trials, granular monoammonium phosphate (MAP) and monocopper sulphate were converted to slurry and applied separately to the planting row, at either pre or post-planting, using tractor mounted multi-boom sprayers. Results were very successful, and further testing should provide the necessary refinement of procedures.

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## **UPGRADING OF RADIO COMMUNICATION SYSTEMS**

Improvements in management procedures and a more efficient coordination of personnel and equipment for wildfire detection and control have followed upgrading of VHF communication systems in the Atherton and Yarraman Districts.

The installation of repeaters and new mobile radios in vehicles in these Districts forms part of a continuing program to upgrade radio communication systems in all Department of Forestry Districts throughout the State.

## **'USER PAYS' CAMPING SYSTEM INTRODUCED**

On 1 November 1988 a 'user pays' camping system was introduced in all Queensland State Forest camping areas. Introduction of the 'user pays' principle is in line with the implementation of program budgeting within the Department - and recognises the increased usage and demand for more and better forest recreation activities and services.

Since the Department first introduced forest recreation into its management 16 years ago, access to camping facilities in State Forests has been provided free of charge.

With the introduction of the user pays system the Department is following a worldwide trend towards user fees to defray costs. The money raised from State Forest camping areas will be used to maintain and upgrade facilities such as toilets, campsites, cooking areas and ranger services.

Campsites have been rated according to the standard of facilities, popularity of the site, level of management required for each area and the interpretive services available. Fees are charged accordingly.

## **FRASER ISLAND INTERPRETIVE CENTRE**

In June 1989 the Eurong Interpretive Centre on Fraser Island was officially opened by the Hon. Geoff Muntz, M.L.A, Minister for Environment, Conservation and Forestry. It is a welcome addition to the expanding range of facilities now available on the Island.

The Centre was jointly funded by the Department and the Fraser Island Recreation Board, and designed by the Department's Engineering Section. It blends in well with its natural beach front surroundings and features an extensive use of native timbers including brush box, ironbark, spotted gum, cypress and blackbutt.

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A three metre long model of the Island dominates the display area of the Centre. It highlights distinctive features of the Island, as well as geographical locations, with accompanying explanatory information. Also part of the permanent display are six Fraser Island 'life systems' represented in a three dimensional scene against a floor to ceiling photograph. Changing displays will provide thematic information on a variety of subjects relating to the Island.

The Centre also has an audio-visual room, provides a variety of literature and acts as an outlet for camping permits.

The Fraser Island Recreation Board appointed the Island's first interpretive officer during the year, with the responsibility of developing interpretation activities and programs for Fraser Island and developing and maintaining displays at Eurong and Central Station.

## **POSTERS AND PUBLICATIONS**

Two superb sets of fine art posters were launched during the year. The first, depicting Queensland's flora and fauna, is based on the paintings of Forestry artist Cameron Coward which featured on the covers of the Department's successful recreation booklet series - *Recreation in State Forests*. The second set of posters depicts Queensland's timber pioneering days and was painted for the Department by Jan Willem Rohan.

A new corporate booklet titled *Caring for our forests ... a tradition of forest conservancy* details the history of forestry in Queensland, forest types, plantations, today's forestry operations, environmental care and plans for the future.

The *Forest Facts* series of information sheets has been introduced to satisfy the many requests for information from primary school children. Each sheet explains in simple terms a particular aspect of forests or the forestry industry.

## **FORESTRY FIRST TO IMPLEMENT NEW COMPUTER BASED ACCOUNTING SYSTEM**

During the year the Department of Forestry was nominated as the Queensland government department for the pilot installation of the latest release of Management Science America (Australia) Pty Ltd's new accounting software.

The software incorporates purchase order production, accounting for encumbrances, on-line funds checking, allocation of costs, automatic matching of purchase orders with invoices and full integration with the Department's non MSA systems.

Implementation of the new system has been a resounding success.

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## **BENEFITS OF COMPUTERISED FLEET MANAGEMENT**

In its first year of operation the new computer based Fleet Management System successfully identified the real costs of owning and operating the Department of Forestry's vehicular fleet and plant. Accurate forecasting resulted in reduced plant hire charges approximating \$1.2m, despite plant hire now being levied on miscellaneous plant.

The System was developed as a cost saving strategy to ensure each fleet item and each workshop is self-funding. Each item now has its own hire rate, which accounts for its operating and maintenance costs as well as its replacement purchase cost. An hourly workshop labour charge-out rate, covering all costs and overheads, ensures workshops are self-funding.

The new Fleet Management System has made it possible to identify uneconomic or surplus plant. As a result, much of the uneconomic plant has been replaced and a younger and more efficient fleet is now in operation. Disposal of surplus plant returned \$400 000.

The System has also enabled development of a Whole of Life Tender Analysis System for evaluation and comparison of plant items prior to purchase. The most economic machine and a prediction of its economic life can now be identified and plant hire charges further reduced.

## **TRAINING CENTRE WELCOMES NEW ERA**

Staff at the Department's Forestry Training Centre, Gympie, bid farewell to 16 graduating forestry technicians and overseers on 23 June. The graduation ceremony marked the end of the Centre's 2 1/2 year Gympie-based curriculum and signalled the beginning of a new era of forestry training in association with Gatton Agricultural College.

From February 1990, forestry training will be one of a suite of courses offered at the College. Intending trainees will spend their first year in Gatton and their second at the Gympie Centre. Under the new scheme graduates will receive an Associate Diploma in Applied Science (Forestry). As with other Australian tertiary education schemes there is opportunity for intending trainees from other states and overseas.

Negotiations are also underway to expand the scope of the forestry training course to suit trainees from relevant industries, and those wishing to enter land care occupations.

# FINANCIAL DATA AND OPERATIONAL STATISTICS



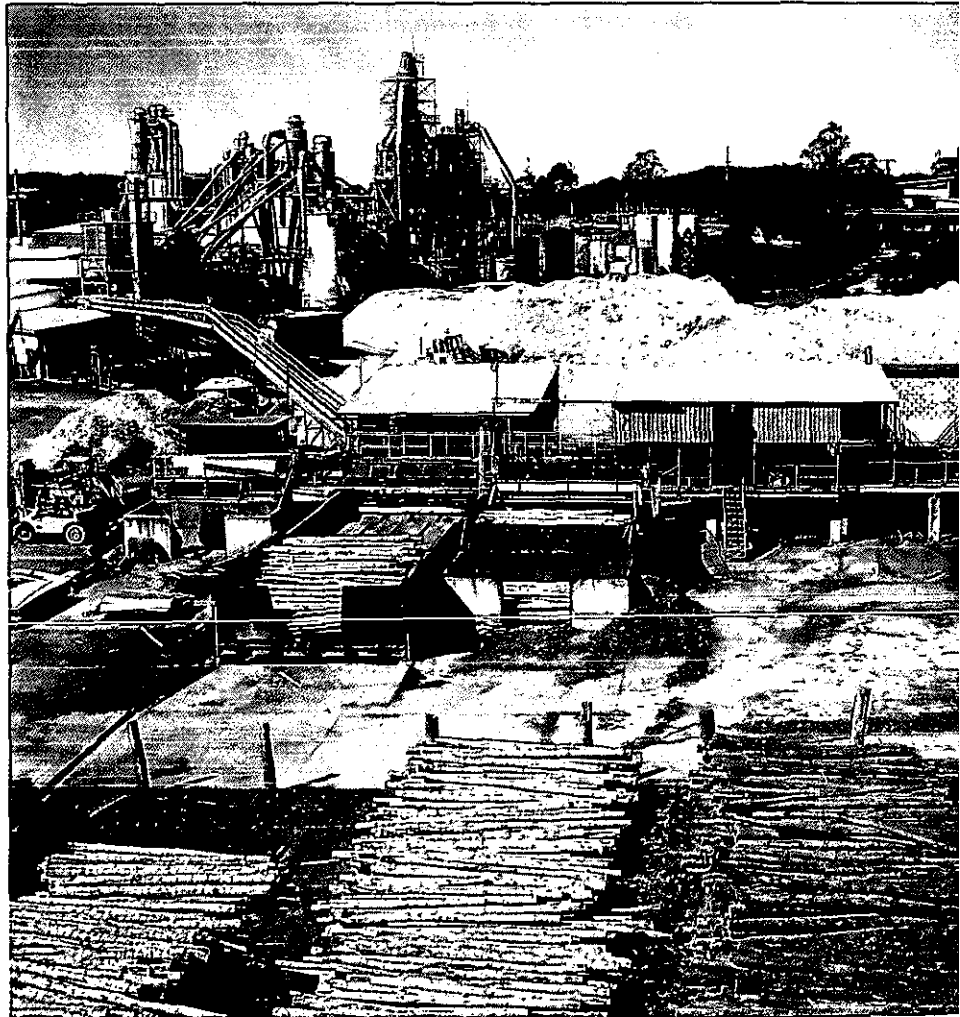
Overseer Len, Pore, Jipil District, measures a fine example of  
plantation grown up pine, the Department's most valuable plantation  
tree. This tree was planted in 1926. Its vital statistics are: height  
17 m., diameter at breast height 76 cm., merchantable length 33.3 m.,  
merchantable volume 75 m<sup>3</sup>.

**Purpose and Scope of Financial Statements:** The Department of Forestry was established pursuant to the *Forestry Act 1959-1987*.

The overall purpose of the Department is the sustainable production of forest products and services within a balanced conservation program which includes the multiple use management of State Forest lands in accordance with the long term best interests of the community.

The Department's financial statements are prepared by the Conservator of Forests and certified by the Auditor-General in accordance with Section 37(3) of the *Financial Administration and Audit Act 1977-1988*.

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



*CSR's particle board plant in Gympie is a major purchaser of the Department's plantation timbers, which are used to produce products such as commercial flooring and moisture-resistant Hydrapanel.*



**Accounting Principles:**

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, and receipts and expenditure are not offset.

Accrual Accounting: The Department is committed to the introduction of commercial accounting principles (accrual accounting) for the 1989-90 financial year. These financial initiatives, which are being introduced through the strategic planning process, will provide for a Profit and Loss Statement, Balance Sheet and Sources and Application of Funds Statement.

They will also provide the means to assess the Department's financial performance on a basis comparable with that of the private sector.

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

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

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

**Funds:**

In accordance with the requirements of the *Constitution Act of 1867-1988* and *Financial Administration and Audit Act 1977-1988* financial transactions are recorded in the Forestry Fund. This Fund incorporates all functions of the Department, including management and development of State Forests, purchase and construction of assets and plant, revenue from the sale of forest products and expenditure in connection with the marketing of such products, interest and redemption on loans, maintenance of plant and all other Departmental expenditures and receipts. The Fund includes contributions from Consolidated Revenue Loan Funds, and in accordance with the principles of program management records all transactions on a program basis.

Accounts: Financial Statements for the year ending 30 June 1989 are provided as follows:

- Statement of Receipts and Payments with other financial information .... Appendix 1
- Sources of revenue and areas of expenditure ..... Appendix 2



**Appendix 1: Statement of receipts and payments - Forestry Fund - 1988-89 financial year**

**RECEIPTS**

Particulars	Receipts \$'000	Program Total \$'000
Balance 1 July 1988 -		
Operating	1 210	
Asset Management and Replacement	<u>7 450</u>	8 660
 Native Forest Production		
Cypress	1 919	
Hardwood	3 963	
Rainforest	<u>615</u>	6 497
 Plantation Production		
Exotics	11 799	
Native	<u>10 927</u>	22 726
 Other Crown Land Sales		
Cypress	1 059	
Hardwood	1 512	
Sandalwood	<u>454</u>	3 025
 Quarry Material Sales	<u>1 127</u>	1 127
 Forest Services		
Recreation	85	
Forest Extension	708	
Timber Utilisation Extension	83	
Forest Entitlement Areas	61	
Wet Tropics Non Timber Management	—	937
 Consultancies	<u>2 162</u>	2 162
 Asset Management and Replacement	<u>10 585</u>	10 585
 Other		
Timber Research and Development Advisory Council	<u>574</u>	574
 Financing Transactions		
Consolidated Revenue Fund	29 091	
Loan Fund		
- Repayable Advances	19 806	
- Non-Repayable Advances	<u>928</u>	49 825

**106 118**



**PAYMENTS**

Particulars	Payments \$'000	Program Total \$'000
Native Forest Production		
Cypress	4 117	
Hardwood	5 717	
Rainforest	<u>1 530</u>	11 364
Plantation Production		
Exotics	27 072	
Native	<u>10 937</u>	38 009
Other Crown Land Sales		
Cypress	398	
Hardwood	1 312	
Sandalwood	<u>197</u>	1 907
Quarry Material Sales	<u>363</u>	363
Forest Services		
Recreation	2 862	
Forest Extension	3 611	
Timber Utilisation Extension	819	
Forest Entitlement Areas	43	
Wet Tropics Non Timber Management	<u>940</u>	8 275
Consultancies	<u>1 886</u>	1 886
Asset Management and Replacement	<u>9 164</u>	9 164
Other		
Timber Research and Development Advisory Council	574	
Interest and Redemption	<u>20 710</u>	21 284
Balance 30 June 1989 -		
Operating	4 995	
Asset Management and Replacement	<u>8 871</u>	13 866

**106 118**

**Notes to and forming part of the accounts**

**1. Basis of accounts**

Receipts and payments are brought to account on a cash basis. The Department adopted program management as from 1 July 1988 which provides for the regular assessment of the financial performance of each program. Accordingly the Statement of Receipts and Payments has been presented on a program basis. No comparisons have been made with the previous year's receipts and payments as this is the first year in which the statements have been presented in this format.

**2. Forestry Fund**

By Executive Council Minute 2671 dated 30 June 1988, it was approved that the previous Trust Fund titled the Forestry and Lumbering Fund be altered to the Forestry Fund. The Forestry Development Fund was then closed and its functions incorporated in the Forestry Fund.

The Forestry Fund now incorporates all functions of the Department and records all Departmental receipts and payments including contributions from the Consolidated Revenue Fund and the Loan Fund.

3. Losses or Deficiencies	Cases	Losses \$'000	Recoveries \$'000
Public moneys or other moneys due to - Debts written off	10	2	-
		2	-
Public property or other property due to - Stealing or other offence	35	8	-
Destruction or damage	1	-	1
		8	1
<b>Total</b>		<b>10</b>	<b>1</b>

**4. Statement of Loan Indebtedness as at 30 June 1989:-**

Sources of Finance	1989 \$'000	1988 \$'000
State Government		
Loan Fund	350 611	330 805
Special Projects Fund	30 603	30 777
Commonwealth Government		
Softwood Loans	21 896	21 221
<b>Total</b>	<b>403 110</b>	<b>382 803</b>



### CERTIFICATE OF THE DEPARTMENT OF FORESTRY

We have prepared the foregoing financial statements and certify that-

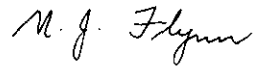
(a) the foregoing Statement of Receipts and Payments and the Notes thereto are in agreement with the accounts and records of the Department of Forestry and;

(b) in our opinion -

the foregoing financial statements have been drawn up so as to present a true and fair view of the Department for the period 1 July 1988 to 30 June 1989, and of the loan indebtedness at 30 June 1989.



T. RYAN  
Conservator of Forests



N. J. FLYNN  
Assistant Conservator of Forests  
(Corporate Services)

Dated this sixth day of September 1989

### Certificate of the Auditor-General

I have examined the accounts of the Department of Forestry and certify as follows:-

(a) I have received all the information and explanations which I have required;

(b) the foregoing Statement of Receipts and Payments and Notes thereto are in agreement with the accounts; and

(c) in my opinion the foregoing financial statements have been drawn up so as to present a true and fair view of the transactions of the Department for the period 1 July 1988 to 30 June 1989, and of the loan indebtedness at 30 June 1989.



P. B. NOLAN  
Auditor-General

### Appendix 2: Sources of revenue and areas of expenditure 1988-89

	Revenue %	Expenditure %
Native Forest Production	6.7	12.4
Plantation Production	23.5	41.5
Other Crown Land Sales	3.1	2.1
Quarry Material Sales	1.2	0.4
Forestry Services	1.0	9.0
Consultancies	2.2	2.0
Asset and Management Replacement	10.9	10.0
Interest and Redemption		22.6
Consolidated Revenue	30.0	
Loan Funds	21.4	

## Appendix 3: Reservation figures for the year ended 30 June, 1989

State Forests	No. of Reservations	Area (hectares)
Total as at 1 July, 1988	481	+3 972 632
Crown Land declared State Forest	3	222
Crown Land declared State Forest and added to existing State Forest	-	+ 16 341
State Forest partially revoked	-	- 3 267
Areas excluded for road or railway purposes	-	-25
Recomputation of boundaries	-	- 2 004
Amalgamation of existing boundaries	-1	-
<b>Total as at 30 June, 1989</b>	<b>483</b>	<b>3 983 899</b>

Timber Reserves	No. of Reservations	Area (hectares)
Total as at 1 July, 1988	98	+ 530 945
Crown land declared Timber Reserve and added to existing Timber Reserve	-	206
Timber Reserve declared State Forest	-2	- 1 601
Timber Reserve partially revoked	-	-67
Recomputation of boundaries	-	-14
<b>Total as at 30 June, 1989</b>	<b>96</b>	<b>529 469</b>

## Appendix 4: State Forests and Timber Reserves listed by Districts as at 30 June, 1989

Forestry District	No. of State Forests	State Forest Areas(hectares)	No. of Timber Reserves	Timber Reserves Areas(hectares)
Atherton	32	380 941	22	306 976
Beerburrum	22	58 563	1	6
Brisbane	42	86 607	4	4 118
Dalby	62	897 790	3	5 918
Gympie	21	82 952	-	-
Imbil	15	62 630	1	1
Ingham	17	290 086	2	798
Maryborough	43	382 712	11	14 327
Monto	56	384 380	18	26 023
Murgon	24	140 696	5	2 402
Rockhampton	82	778 276	22	146 428
Roma	40	357 243	1	19 653
Yarraman	27	81 023	6	2 819
<b>Total</b>	<b>483</b>	<b>3 983 899</b>	<b>96</b>	<b>529 469</b>

**Appendix 5: Net area of softwood plantation established 1 April, 1988 to 31 March, 1989 (hectares)**

District	Hoop Pine			Caribbean Pine		Other Exotic Conifers			Total 1988-89	Total 1987-88
	New Areas	Other Areas	Total Native Conifers	New Areas	Other Areas	New Areas	Other Areas	Total Exotic Conifers		
Atherton	-	-	-	137	-	-	-	137	137	122
Beerburrum	-	-	-	223	120	22	55	420	420	351
Brisbane	-	-	-	-	-	1	21	22	22	59
Gympie	-	-	-	1 688	-	92	1	1 781	1 781	1 801
Imbil	45	117	162	-	-	-	-	-	162	39
Ingham	-	-	-	650	92	49	-	791	791	583
Maryborough	-	-	-	1 529	20	678	27	2 254	2 254	2 151
Monto	36	-	36	-	-	-	-	-	36	48
Murgon	106	-	106	-	-	-	-	-	106	123
Rockhampton	-	-	-	118	-	5	-	123	123	127
Yarraman	129	164	293	-	-	-	-	-	293	319
<b>Total 1988-89</b>	<b>316</b>	<b>281</b>	<b>597</b>	<b>4 345</b>	<b>232</b>	<b>847</b>	<b>104</b>	<b>5 528</b>	<b>6 125</b>	
Total 1987-88	364	224	588	3 577	197	1 159	202	5 135		5 723

**Appendix 6: Net area of effective softwood plantation as at 31 March, 1989 (hectares)**

District	Native Conifers			Exotic Conifers				Total 1988-89	Total 1987-88
	Hoop Pine	Other Native Conifers	Total Native Conifers	Slash Pine	Caribbean Pine	Other Exotic Conifers	Total Exotic Conifers		
Atherton	1 018	108	1 126	3	1 849	101	1 953	3 079	2 942
Beerburrum	631	5	636	12 636	2 957	1 909	17 502	18 138	18 110
Brisbane	943	6	949	269	4	2 075	2 348	3 297	3 382
Gympie	321	25	346	24 623	9 357	1 394	35 374	35 720	34 147
Imbil	11 981	230	12 211	24	103	264	391	12 602	12 556
Ingham	4	1	5	2	8 077	137	8 216	8 221	7 529
Maryborough	1 465	32	1 497	26 444	19 321	1 768	47 533	49 030	47 135
Monto	3 220	2	3 222	14	3	9	26	3 248	3 212
Murgon	9 055	133	9 188	1	1	34	36	9 224	9 128
Rockhampton	261	1	262	830	5 880	88	6 798	7 060	7 104
Yarraman	15 372	118	15 490	502	400	1 521	2 423	17 913	17 833
<b>Total 1988-89</b>	<b>44 271</b>	<b>661</b>	<b>44 932</b>	<b>65 348</b>	<b>47 952</b>	<b>9 300</b>	<b>122 600</b>	<b>167 532</b>	
Total 1987-88	43 995	665	44 660	66 255	43 539	8 624	118 418		163 078

**APPENDIX 7: Net area of effective broadleaf plantation as at 31 March, 1989 (hectares)**

District	Native Forest Hardwoods	Other Broadleaf Species	Miscellaneous Species	Total 1988-89	Total 1987-88
Atherton	28	151	8	187	187
Beerburrum	243	-	39	282	282
Brisbane	104	1	2	107	108
Gympie	760	-	23	783	781
Imbil	5	82	6	93	99
Ingham	2	1	24	27	21
Maryborough	49	-	61	110	110
Murgon	17	9	1	27	27
Rockhampton	1	1	6	8	8
Yarraman	105	12	31	148	171
<b>Total 1988-89</b>	<b>1 314</b>	<b>257</b>	<b>201</b>	<b>1 772</b>	
Total 1987-88	1 322	279	193		1 794

**APPENDIX 8: Areas of native forest treated 1988-89 (hectares)**

District	Eucalypt Forest	Cypress Pine Forest	Total 1988-89	Total 1987-88
Beerburrum	119	-	119	234
Dalby	4	2 041	2 045	2 853
Gympie	-	-	-	348
Monto	129	-	129	705
Murgon	183	-	183	22
Rockhampton	-	-	-	314
Roma	-	953	953	1 356
Yarraman	216	-	216	178
<b>Total 1988-89</b>	<b>651</b>	<b>2 994</b>	<b>3 645</b>	
Total 1987-88	1 801	4 209		6 010



## Appendix 9: Operational statistics 1988-89

Operation	Total 1988-89	Total 1987-88
Softwood Plantation Establishment (hectares)	6 128	5 723
Nursery Stock*, Departmental Use -		
Hoop Pine -		
Container	510 360	518 975
Caribbean Pine -		
Container	934 492	135 611
Open Root	4 003 936	3 753 402
Slash Pine -		
Open Root	-	5 925
Caribbean/Slash Pine Hybrid -		
Container	28 100	4 400
Open Root	860 687	1 400 000
Radiata Pine -		
Container	16 200	-
Open Root	640	87 342
Loblolly Pine -		
Container	-	1 717
Open Root	12 668	30 084
Eucalypts -		
Container	124 550	191 064
Hardwood Trials	-	45 000
Nursery Stock		
Forest Plots, Windbreaks, Rehabilitation, etc.	224 481	493 968
Amenity Stock	253 879	168 431
Leucaena	9 310	44 950
Total Value of Seedlings Sold - \$	394 140	274 105
Seed Sales - \$	128 955	121 700
Weed Control -		
Native Pine Plantation (hectares)	5 665	5 591
Exotic Pine Plantation (hectares)	14 039	13 901
Fertilizing -		
Establishment (hectares)	2 015	4 436
Maintenance (hectares)	5 140	7 531
Pruning -		
First (hectares)	3 048	3 191
Final (hectares)	2 757	3 576
Operating Plant as at 30 June -		
Motor Vehicles and Trucks	454	501
Graders	15	14
Rubber-tyred Tractors and Loaders	56	70
Crawler Dozers	17	19

\* All Departmental use information refers to the twelve month period 1 April to 31 March.

**APPENDIX 10: Milling timber removals from Crown lands 1988-89 (gross measure m<sup>3</sup>)**

**NATIVE FOREST HARDWOODS AND SCRUBWOODS**

<b>District</b>	<b>Forest Hardwoods</b>	<b>Rainforest Structural Timber</b>	<b>Rainforest Cabinet Woods</b>	<b>Total Hardwoods and Scrubwoods</b>
Atherton	12 086	1 051	3 958	17 095
Beerburrum	20 176	-	19	20 195
Brisbane	8 902	37	13	8 952
Dalby	11 915	-	-	11 915
Gympie	19 588	3	-	19 591
Imbil	12 948	-	62	13 010
Ingham	3 124	-	3	3 127
Maryborough	54 118	72	-	54 190
Monto	40 464	5	-	40 469
Murgon	17 356	110	1	17 467
Rockhampton	43 110	2 395	1 001	46 506
Yarraman	8 692	3	-	8 695
<b>Total 1988-89</b>	<b>252 479</b>	<b>3 676</b>	<b>5 057</b>	<b>261 212</b>
Total 1987-88	232 796	25 843	34 431	293 070

**NATIVE FOREST CONIFERS**

<b>District</b>	<b>Cypress Pine</b>	<b>Other Conifers</b>	<b>Total Conifers</b>
Atherton	-	81	81
Brisbane	430	447	877
Dalby	61 062	-	61 062
Gympie	640	22	662
Imbil	39	467	506
Maryborough	63	7 676	7 739
Monto	81	1 415	1 496
Murgon	407	942	1 349
Rockhampton	4 744	60	4 804
Roma	67 404	-	67 404
Yarraman	8 617	134	8 751
<b>Total 1988-89</b>	<b>143 487</b>	<b>11 244</b>	<b>154 731</b>
Total 1987-88	126 226	21 248	147 474

## PLANTATION

District	Native Conifers	Exotic Conifers	Non-Conifers	Total Plantation
Atherton	4 013	-	-	4 013
Beerburrum	3 932	134 767	-	138 699
Brisbane	3 104	33 907	-	37 011
Gympie	75	65 511	1 742	67 328
Imbil	72 429	307	1 542	74 278
Ingham	110	1 104	-	1 214
Maryborough	1 177	69 458	-	70 635
Monto	11 288	4	-	11 292
Murgon	7 564	2 282	-	9 846
Rockhampton	226	22 930	-	23 156
Yarraman	107 491	10 597	-	118 088
<b>Total 1988-89</b>	<b>211 409</b>	<b>340 867</b>	<b>3 284</b>	<b>555 560</b>
Total 1987-88	181 309	264 889	2 495	448 693

## ALL MILLING TIMBER

District	Total 1988-89	Total 1987-88
Atherton	21 189	54 231
Beerburrum	158 894	Included under Brisbane
Brisbane	46 840	140 004
Dalby	72 977	139 932
Gympie	87 580	134 891
Imbil	87 794	Included under Gympie
Ingham	4 341	17 016
Maryborough	132 565	122 375
Monto	53 257	49 949
Murgon	28 662	43 548
Rockhampton	74 466	64 593
Roma	67 404	Included under Dalby
Yarraman	135 534	122 590
<b>Total</b>	<b>971 503</b>	<b>889 129</b>

### Appendix 11: Pulpwood removals from Crown lands 1988-89 (gross measure m<sup>3</sup>)

District	Plantation		Native Forests	Total 1988-89	Total 1987-88
	Native Conifers	Exotic Conifers	Non- Conifers		
Beerburrum	96	11 884	-	<b>11 980</b>	-
Brisbane	-	-	-	-	25 470
Gympie	-	70 129	-	<b>70 129</b>	12 846
Imbil	4	-	-	<b>4</b>	-
Maryborough	-	7 466	-	<b>7 466</b>	8 677
Yarraman	1 098	1 090	8 776	<b>10 964</b>	11 640
<b>Total 1988-89</b>	<b>1 198</b>	<b>90 569</b>	<b>8 776</b>	<b>100 543</b>	
Total 1987-88	1 474	47 293	9 866		58 633

### Appendix 12: Miscellaneous removals from Crown lands 1988-89

Product Group	Volume* cubic metres	Value \$
Railway Sleepers and other Railway Timbers/ Non-Railway Sleepers and Like Timbers	24 873	822 136
Round Timbers	48 296	1 133 206
Mining Timbers	2 980	20 693
Landscaping and Fencing Timbers	40 134	593 409
Quarry Materials	1 618 448	1 127 425
Minor Forest Products	n/a	407 331

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

**Appendix 13: Milling timber processed from private lands 1988-89 (gross measure m<sup>3</sup>)\***

**NATIVE FOREST HARDWOODS AND SCRUBWOODS**

District	Forest Hardwoods	Rainforest Structural Timber	Rainforest Cabinet Woods	Total Hardwoods and Scrubwoods
Atherton	3 881	18 174	10 563	32 618
Beerburum	10 312	670	4	10 986
Brisbane	31 702	277	33	32 012
Dalby	10 137	-	-	10 137
Gympie	8 093	-	-	8 093
Imbil	6 458	-	-	6 458
Ingham	11 000	484	2 228	13 712
Maryborough	53 632	662	2	54 296
Monto	23 909	-	-	23 909
Murgon	12 776	-	-	12 776
Rockhampton	22 010	1 730	790	24 530
Yarraman	14 913	-	-	14 913
<b>Total 1988-89</b>	<b>208 823</b>	<b>21 997</b>	<b>13 620</b>	<b>244 440</b>
Total 1987-88	195 167	12 390	10 809	218 366

**NATIVE FOREST CONIFERS**

District	Cypress Pine	Other Conifers	Total Conifers
Atherton	-	302	302
Beerburum	-	480	480
Brisbane	1	518	519
Dalby	33 465	-	33 465
Gympie	-	315	315
Ingham	-	4	4
Maryborough	-	854	854
Monto	-	38	38
Rockhampton	86	25	111
Roma	16 956	-	16 956
Yarraman	90	138	228
<b>Total 1988-89</b>	<b>50 598</b>	<b>2 674</b>	<b>53 272</b>
Total 1987-88	36 359	12 012	48 371

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

**Appendix 13:\* ( cont'd)**

**PLANTATION**

<b>District</b>	<b>Native Conifers</b>	<b>Exotic Conifers</b>	<b>Imported</b>	<b>Total Plantation and Imported</b>
Beerburrum	-	9 260	25	9 285
Brisbane	-	28 790	9 942	38 732
Gympie	-	120	-	120
Imbil	-	978	-	978
Maryborough	-	2	-	2
Monto	-	8	-	8
Murgon	-	886	-	886
Rockhampton	-	5 108	-	5 108
Yarraman	-	14	-	14
<b>Total 1988-89</b>	-	<b>45 166</b>	<b>9 967</b>	<b>55 133</b>
Total 1987-88	466	28 151	15 287	43 904

**ALL MILLING TIMBER**

<b>District</b>	<b>Total 1988-89</b>	<b>Total 1987-88</b>
Atherton	32 920	18 386
Beerburrum	20 751	Included under Brisbane
Brisbane	71 263	100 539
Dalby	43 602	47 797
Gympie	8 528	12 129
Ingham	13 716	10 492
Imbil	6 458	Included under Gympie
Maryborough	55 152	46 609
Monto	23 955	19 810
Murgon	13 662	10 281
Rockhampton	29 749	32 308
Roma	16 956	Included under Dalby
Yarraman	15 155	12 290
<b>Total</b>	<b>351 867</b>	<b>310 641</b>

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

**Appendix 14: Pulpwood processed from private lands 1988-89 (gross measure m<sup>3</sup>)**

District	Forest Hardwoods	Plantation-Exotic Conifers	Total 1988-89	Total 1987-88
Brisbane	36 844	31 232	68 076	54 892
<b>Total 1988-89</b>	<b>36 844</b>	<b>31 232</b>	<b>68 076</b>	
Total 1987-88	34 131	20 761		54 892

**Appendix 15: Staff distribution as at 30 June, 1989**

	Head Office	Research	District	Total 1988-89	Total 1987-88
Salaried Officers*-					
Graduate	74	39	34	147	162
Technical	50	42	7	99	108
Field Supervisory	2	-	96	98	107
Administrative/Clerical	124	10	82	216	237
Sub-Total	250	91	219	560	614
Wages Employees -					
Native Forest Production	3	-	131	134	**
Plantation Production	10	-	664	674	**
Other Crown Land Sales	-	-	4	4	**
Forest Services	14	-	60	74	**
Consultancies	1	-	13	14	**
Sub-Total	28		872	900	985
<b>Total 30-6-89</b>	<b>368</b>	<b>91</b>	<b>1 195</b>	<b>1 563</b>	
Total 30-6-88	379		1 262		1 641

\* Based on establishment figures

\*\* Figures not available in program format for 1987-88

## APPENDIX 16: Publications

### PUBLICATIONS - MAPS

Reference	Map Name	Edition		District
Scale 1:15 000		Byfield State Forest Sheet 4	1	Rockhampton
Scale 1:25 000		Main Range	5	Brisbane
		Mount Barney	4	Brisbane
		Mount Mistake	3	Brisbane
	8061-21	Mount MacAlister	2	Ingham
	8061-23	Mount Echo	2	Ingham
	8061-24	Mount Thorn	2	Ingham
	8061-31	Yamanie Falls	2	Ingham
	8061-32	Herkes	2	Atherton/Ingham
	8061-33	Black Burdekin River	2	Atherton/Ingham
	8061-34	George Range	2	Atherton/Ingham
	8062-41	Mount Father Clancy	2	Atherton
	8062-42	Karang Garee Falls	2	Atherton/Ingham
	8062-43	Mount Koolmoon	2	Atherton/Ingham
	8062-44	Milla Milla	2	Atherton
	8162-33	Tam O'Shanter	2	Ingham
Scale 1:50 000				
	8061-2	Mount Graham	2	Ingham
	8061-3	Black Burdekin River	2	Atherton/Ingham
	8062-3	Tully Falls	2	Atherton/Ingham
	8062-4	Milla Milla	2	Atherton/Ingham
	8064-3	Kuranda	2	Atherton
	8161-3	Cardwell	2	Ingham
	8162-3	Clump Point	2	Atherton/Ingham
	9444-4	Kenilworth	2	Imbil/Beerburum/Murgon



## PUBLICATIONS - GENERAL

### Booklets

*Caring for our forests*

### Information Sheets

- Forests Facts*
- No. 1 *The history of forestry in Queensland*
  - No. 2 *Forests give us more than timber*
  - No. 3 *What is a forest?*
  - No. 4 *Plantations*
  - No. 5 *Looking at trees*
  - No. 6 *Wood - from tree to product*
  - No. 7 *Conserving our rainforests*

### Posters

*Flora and Fauna* - series of six  
*Timber Pioneers* - series of six

### Periodicals

*Between the Leaves* (Departmental Newsletter)

### Audio-Visual

*Rescuing the Future* (24 minute land degradation video produced in conjunction with five other State Government instrumentalities)

## PUBLICATIONS - RESEARCH

### Technical Papers

No. 47 Preston, R. A. and Vanclay, J. K. *Calculation of yields from north Queensland rainforests.* (1988) 19p. + app.

### Timber Trends

No. 12 Greve, D. M. *Building materials used in house construction in Queensland - 1987/88* (1988) 14p.  
No. 13 Diehm, W. I. *Timber volumes used in house construction.* (1989) 8p.

### Tree Advice

No. 18 *Establishing a rainforest garden.* (1988) 3p.

### Contributing Authors

*Trees for the tropics - growing Australian multipurpose trees and shrubs in developing countries.* ed. D. J. Boland. Australian Centre for Agricultural Research, Canberra (1989). Ch. 5 : Growth, coppicing and flowering of Australian tree species in trials in southeast Queensland, Australia. P. A. Ryan and R. E. Bell, Ch. 18: Drying and burning properties of the wood of some Australian tree species. D. K. Gough, R. E. Bell, P. A. Ryan and C. T. Bragg.

## APPENDIX 17: Forestry Districts

### Head Office

Forestry House  
160 Mary Street  
BRISBANE Q 4000  
Telephone: (07) 234 0111  
Facsimile: (07) 234 0271

GPO Box 944  
BRISBANE Q 4001

### Division of Technical Services

(Forest Research/Timber Research and Extension)  
80 Meiers Road  
INDOOROOPILLY Q 4068  
Telephone: (07) 377 6400  
Facsimile: (07) 371 2217

PO Box 631  
INDOOROOPILLY Q 4068

Districts	District Foresters	PO Box Number	Telephone	Facsimile
<b>S.E. Region</b>				
Beerburrum	M. ANDERSON	PO Beerburrum	(071) 96 0166	(071) 96 0173
Brisbane	W. GREASLEY	GPO Box 1473	(07) 234 0204	(07) 221 4713
Gympie	G. SWARTZ	M/S 483	(071) 82 2244	(071) 82 3430
Imbil	G. HILEY	PO Box 37	(071) 84 5133	(071) 84 5220
Maryborough	P. HOLZWORTH	PO Box 219	(071) 23 7833	(071) 22 4498
Murgon	A. HARVEY	PO Box 42	(071) 68 1422	(071) 68 2982
<b>N.W. Region</b>				
Atherton	K. GOULD	PO Box 210	(070) 91 1844	(070) 91 3281
Dalby	P. MALE	PO Box 590	(076) 62 2022	(076) 62 4220
Ingham	L. HAWKES	PO Box 1322	(077) 76 2354	(077) 76 3500
Monto	K. WAUGH	PO Box 219	(071) 66 1433	(071) 66 1871
Rockhampton	P. TWEEDY	PO Box 344	(079) 27 6877	(079) 27 2158
Roma	R. ROBINSON	PO Box 133	(076) 22 9763	(076) 22 3587
Yarraman	E. EPP	PO Box 21	(071) 63 8208	(071) 63 8518