

# Annual Report 1989 - 90




– A corporate group within the Queensland Department of Primary Industries.

The Purpose of this report is to account to the people of Queensland on the performance of programs within the Queensland Forest Service.

## Contents

3 .....	The Year Reviewed
4 .....	Constitution
6 .....	Functions
7 .....	Management Principles
8 .....	Operating Philosophy
9 .....	Organisational Structure
10.....	Review of Operations - Personnel
12.....	Review of Operations - Native Forest Production Program
16.....	Review of Operations - Plantation Production Program
20.....	Review of Operations - Other Resource Sales Program
24.....	Review of Operations - Forest Services Program
30.....	Financial Information
36.....	Appendices



## The Year Reviewed

The year 1989-90 will go down as one of particular historical significance for forest management in Queensland.

As readers of this annual report will notice at first glance, the Queensland Department of Forestry has become the Queensland Forest Service within an expanded Queensland Department of Primary Industries, following a decision made by the newly elected State Government in December 1989.

In line with the objectives laid out for establishing the expanded Department, the Forest Service is working with other units of the new organisation towards common or compatible management support systems which will ensure efficient co-operation and co-ordination at all appropriate levels.

Each functional service area is being thoroughly examined, and the level of integration ultimately adopted will be based on providing essential services to the required standard in the most efficient manner.

Significant opportunities for co-operative progress have already surfaced, particularly in the Land Care area. The delivery of agroforestry extension services to the rural community has been enhanced through intra-Departmental networking. Other opportunities are steadily unfolding as staff discover common areas of interest and expertise.

Within the Forest Service, program performance was strong during the year, and the portrayal of key result areas and performance indicators will aid the reader's assessment of reporting data.

The faith of the timber industry in the State's plantation resource was once again amply demonstrated during the year, with the construction of ACI Timber Products' new sawmill at Imbil. The new mill, built at a cost of about \$25 million, is undergoing working up trials and when fully operational will employ around 80 people and process up to 100 000 cubic metres of hoop pine from surrounding plantations.

The year also saw a confrontation over the selection harvesting of native forest on Fraser Island State Forest. The Queensland Government - in a move designed to establish a system for conflict resolution where such sensitive land use matters are involved - set up an Inquiry headed by Mr Tony Fitzgerald QC. Several hearings have been held, and numerous submissions received. A final report is expected to be presented to Government in late April, 1991.

In February 1990, State Cabinet directed that the Forest Service co-ordinate the preparation of a State Government submission to the Resource Assessment Commission inquiry into Australia's forest and timber resources. The RAC inquiry will look at a range of economic, environmental and social issues relating to the use of our forests, and is by far the most wide ranging inquiry of its type ever held. There can be little doubt that the inquiry will have a profound influence on forest management in all States.

The Queensland Government submission should prove to be a most important contribution to the inquiry. The assistance of other State Government agencies in this important project has been greatly appreciated by the Forest Service.

As we enter the final decade of the 20th century, I am confident that the Queensland Forest Service is well-placed with resources, management systems, planning and personnel to ensure that the multiple benefits flowing to the community from its State Forests will be enhanced for the benefit of generations ahead.



Tom Ryan  
CONSERVATOR OF FORESTS

# Constitution

## Historical Background

A Forestry Branch of the Queensland Department of Lands was established in 1900, with the function of making reservations of well-timbered land.

The first Director of Forests was appointed in 1905, and in the following year the *State Forests and National Parks Act* of 1906 empowered the Governor-in-Council to permanently reserve Crown land as State Forest or National Park. Such reservations could only be annulled by an Act of Parliament.

The management of forests on Crown land in Queensland has progressed since the early 1900s, increasing in scope and complexity as it responded to changing demands on the forests - and responding to an evolving community recognition of the many commercial and social values that forests can supply.

The management of Queensland's state forests was vested in the Queensland Forest Service until 1957, when the Government of the day established the Department of Forestry. In 1959 the newly-passed *Forestry Act* provided a comprehensive framework for the management of state forests and national parks.

The responsibility for managing national parks in Queensland remained with the Department of Forestry until 1975, when control was passed to the State's newly-formed National Parks and Wildlife Service.

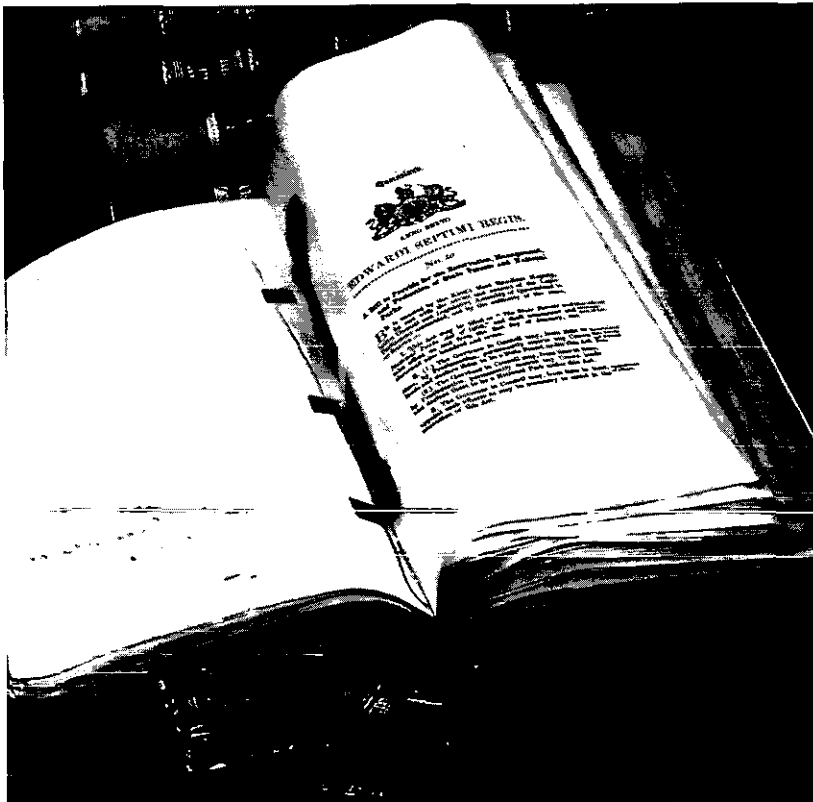
An Order in Council on 7 December 1989 placed administrative control of the former Department of Forestry within the Queensland Department of Primary Industries. The Queensland Forest Service has since evolved as a corporate group within the Department of Primary Industries.

The Forest Service is accountable to the Minister for Primary Industries through the Director-General of the Department. The Service is responsible for providing professional, objective advice on forest management to the Minister and other members of Government.

Over the past 90 years, Crown land reserved as forest in Queensland has grown from nothing to a forest estate of about 4.5 million hectares - or about two hectares for every resident of the State.

The modern Queensland Forest Service has inherited a proud tradition of meeting society's needs from a renewable resource.

*Legislation passed by State Parliament in 1906 provided for the reservation of State Forests and National Parks.*



## Acts administered by the Queensland Forest Service

### *Forestry Act 1959-1990*

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 Licensing Act 1936-1979*

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

### *The Sawmills Licensing 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 Heritage

### *Recreation Areas Management Act 1988-1990*

An Act to provide for the setting apart of land and waters throughout Queensland as, and for management of recreational activities in Recreation Areas, and for related purposes.

### *Recreation Areas Management Regulations 1989*

### *Fraser Island Recreation Area By-Laws*

## Changes in Legislation

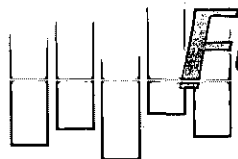
Amendments to legislation administered by the Forest Service in the 1989-90 period have been by way of the Diseases in Timber Act 1975 and the Recreation Areas Management Act 1988-1990.

In regard to the Diseases in Timber Act, provision was made for action to be taken against an insect pest with the potential to become a major hazard to exotic pine plantations in the State. *Sirex noctilio* F. (Sirex wasp) has caused substantial damage to pine plantations in the southern states of Australia over the past decade, and has been steadily moving northward towards Queensland.

The Recreation Areas Management Act of 1988-1990, which is jointly administered by the Forest Service and the Queensland National Parks and Wildlife Service, is currently subject to a review which included a recent amendment as an interim step to this process.

Cabinet approval was also sought and obtained to draft a bill to amend the Sawmills Licensing Act 1936-1979. The proposed amendments will transfer the powers and responsibilities of the Minister under the Act to the Conservator of Forests, and provide for a number of other changes of a machinery nature. Preparation of this draft is well advanced.

Preliminary work has been undertaken with a view to amending the Forestry Act to provide for the transfer of certain powers of the Minister to the Conservator of Forests, the issue of Infringement Notices and a streamlined process for authorising camping on State Forests.



# Functions

Forest Service goals and the activities that flow therefrom are intended to reflect community aspirations for the public forest estate.

## Purpose

The overall purpose of the Queensland Forest Service 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.

## Goals

- To produce forest products in accordance with long-term community requirements.
- To ensure state forests are used and managed in an efficient, effective and environmentally responsible manner.
- To maximise community benefits arising from the management of state forests while ensuring a positive return on any investment funds utilised.
- To encourage and facilitate the long-term economic viability of the Queensland-based forest products sector.
- To encourage the development and sound management of private forest resources.
- To ensure a high level of community awareness of the values and diverse uses of trees and forests.

## Program Structure

Forest Service programs are the focus of all organisational endeavours, and all financial inputs and outputs are accounted against them.

The programs and their component subprograms are outcome-oriented, and derive their respective charters from organisational goals relating to the production of forest products and the provision of forest-based services.

Each program therefore represents a specific function. However, the nature and physical scope of organisational endeavours necessitate the grouping of specialist personnel into skill-based work units. All activities of the work units are regarded as program support functions, and are accordingly identified in financial accounts and fully allocated to programs.

The system has proven administratively efficient, as expenditure is tracked on a program basis and the effective utilisation of Service personnel is maximised.

For the reporting year 1989-1990, the program structure had four major components and several subcomponents.

Program	Subprogram
Native Forest Production	Hardwood
	Cypress
	Rainforest
Plantation Production	Exotics
	Native
Other Resource Sales	Quarry Materials Sales
	Other Crown Forests
	Consultancies
Forest Services	Recreation
	Timber Utilisation Extension
	Forest Extension



# Management Principles

## Strategic Planning

The goals of the Queensland Forest Service provide for outputs which range from commercial to predominantly social in nature. For example, the industrial wood outputs from state forests are largely commercial in nature, while the care of native forests and the development of recreation opportunities for the community are activities with a strong social orientation.

The need to provide a clear separation between the commercial and social goals is recognised by the Service's strategic planning process. Program management criteria aim at individual accountability for its various commercial and social responsibilities.

Establishing and adhering to certain key principles were fundamental to the development and implementation of a suitable program management framework. Those principles involved:

- The careful definition of Forest Service programs;
- The development of financial goals recognising the range of social benefits flowing from otherwise commercial operations; and
- The development of a range of Sound Practice Indicators to ensure all forest management practices are conducted to a specified standard.

Program management within the Forest Service overlays the organisational structure, which is broadly segmented along traditional work unit lines.

The extensive regional responsibilities of the Service preclude an organisational structure based purely on program lines - thus avoiding duplication of support services and complicated lines of communication.

## The Planning Framework

A proven planning framework has evolved.

**Program Plans** outline the background and objectives for each major area of Service activities.

**Special Issue Plans** contain policies and strategies for specific areas of concern.

**Resource Allocation Plans** detail the resources required by each district and work unit to achieve program objectives over a three-year planning horizon.

**District and Support Work Unit Plans** translate Service goals, strategies and objectives into operational reality. These plans are distilled from any or all of the foregoing, plus the Service's operating philosophy.

**Management Plans** define and direct activity within the 49 State Forest Groups managed by the Service. They are an important conduit for public comment on management practice.

**Action Plans** are implementation schedules for specific activities at State Forest Group level, and include harvesting plans, logging histories, environmental protection plans and maintenance schedules. They are derived from District Plans.

## Funding Strategies

In order to achieve its financial goals in program areas, the Forest Service has committed itself to maintaining a clear separation of funding applied to commercial and social programs.

Part of its annual funding is applied to commercial activities able to yield specified returns on investment. The remainder is directed to socially oriented activities that have less demanding financial imperatives.

This funding strategy follows these key principles:

- Revenues generated within individual programs are used to finance activities within those programs as far as possible.
- Revenues in excess of expenditure in any program can be used to fund projects in other programs, provided they meet predefined financial criteria for project acceptance and maintain their commercial/non-commercial separation.
- When total annual revenues in commercial programs exceed all costs, the excess revenue is returned to the Queensland Treasury as a dividend on investment in forest development.



# Operating Philosophy

These basic beliefs are inherent to all activities of the Queensland Forest Service, and are considered a code of conduct.

## **Staff**

Staff are the Forest Service's most important asset. Human resource management emphasises personal development within a program achievement context.

## **Customers**

Satisfying customers' requirements is a fundamental Service aim. Clients are highly valued, and every effort is made to provide quality products and services in a timely manner and at reasonable prices.

## **Management Style**

Responsible and participative management is promoted, and calculated risk taking by managers is encouraged. Results are recognised as the appropriate measure of performance.

## **Land Use Planning and Management**

The Forest Service is committed to the sustainable multiple use management of state forests. It will always strive to ensure that activities are performed in an environmentally responsible manner - and will seek to resolve potential conflicts in land use through priority zoning systems.

The Service believes that land management decisions should take account of community attitudes.

## **Responsibility as Citizens**

Forest Service staff are encouraged to fulfil their responsibilities as members of the communities in which they operate, and to manage their affairs - both individually and as members of the Forest Service - with integrity and excellence.

# The Organisational Structure



**Conservator of Forests**  
Tom Ryan



**Deputy Conservator Production**  
Peter Cranny

Regional Director SE Region  
  
Regional Director NW Region  
  
Marketing and Yield Regulation  
  
Forest Development  
  
Fire Protection  
  
Engineering Services



**Assistant Conservator Strategic Services**  
Terry Johnston

Program Management  
  
Economics  
  
Management Audit and Review



**Assistant Conservator Technical Services**  
Norm Clough

Forest Research  
  
Timber Research and Extension  
  
Land Use and Information  
  
Information Technology  
  
Survey and Mapping  
  
Consultancies



**Assistant Conservator Corporate Services**  
Neil Flynn

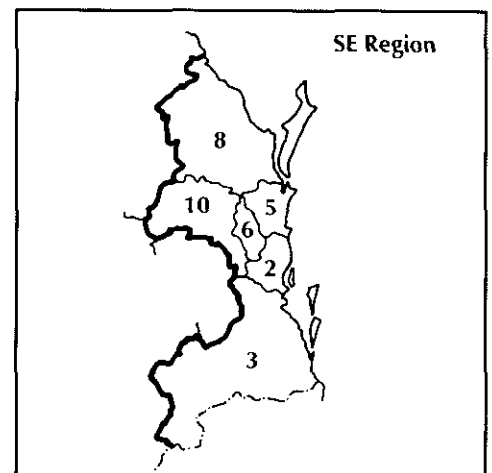
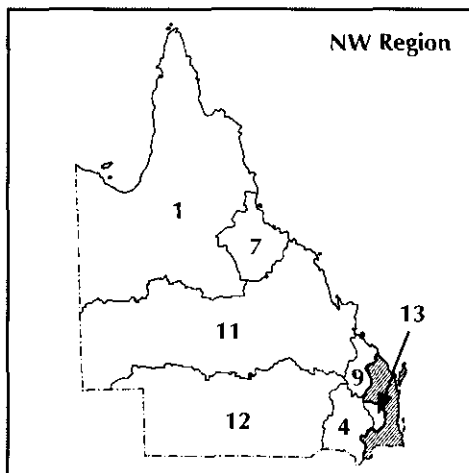
Financial Management  
  
Financial Investigations  
  
Estates and Legislation  
  
Personnel Services  
  
Administrative Services

## NW Region Districts

Atherton (1)  
Dalby (4)  
Ingham (7)  
Monto (9)  
Rockhampton (11)  
Roma (12)  
Yarraman (13)

## SE Region Districts

Beerburrum (2)  
Brisbane (3)  
Gympie (5)  
Imbil (6)  
Maryborough (8)  
Murgon (10)





# Review of Operations Personnel

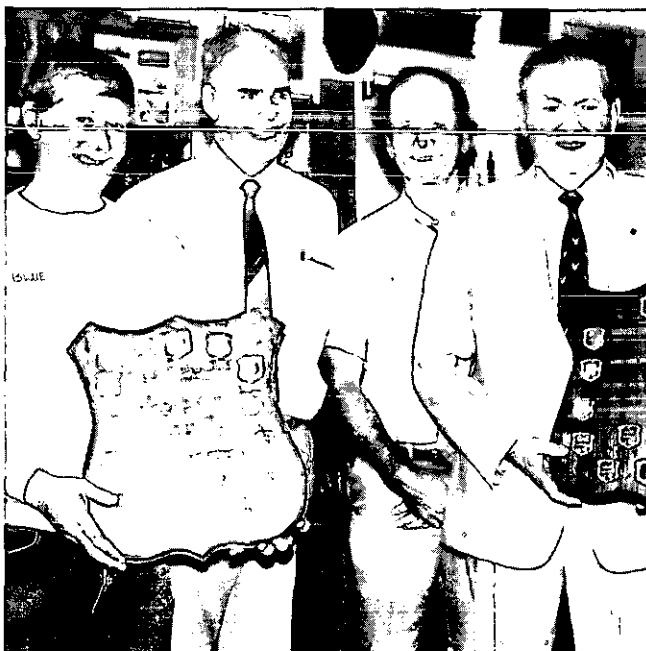
## Safety

The Queensland Forest Service recognises its obligation to protect all employees from the risk of work injury. Safety policy is implemented through a series of strategies relating to controls in the working environment and training methods aimed at the human factors associated with injuries and accidents.

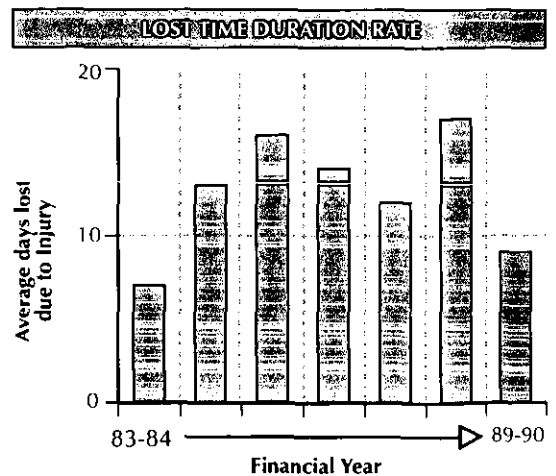
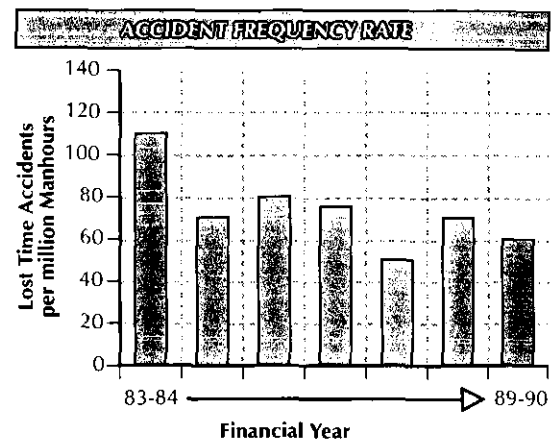
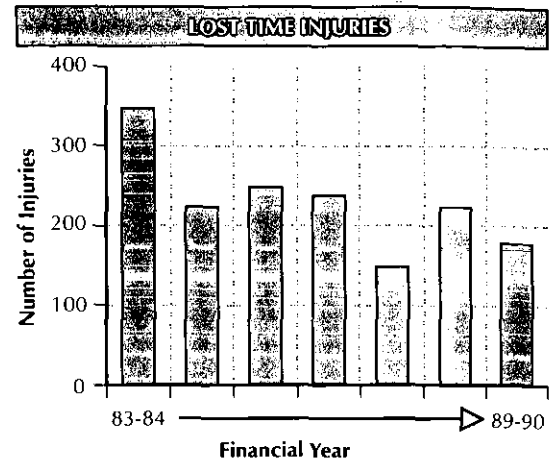
Safety committees have been established in 11 of the 13 Districts. The functions of the committees are to:

- maintain an interest in safety among employees
- advise the District Forester or Forest Ranger on safety problems and safety concerns of employees
- advise the District Forester or Forest Ranger where it is considered safety training is required
- review the circumstances relating to accidents and injuries
- assist in the assessment relating to accidents and injuries
- assist in the assessment of safety equipment
- assist in the formulation of the District Safety Plan.

**New Legislation:** The new Workplace Health and Safety Act was introduced in July 1989. The legislation is binding on the Crown and requires employers to provide a safe workplace, safe equipment, procedures and effective supervision.



## Safety Performance



Monto District Office won the Minister's Safety Shield for the lowest lost-time injury rate and the Conservator's Shield for the most improved safety performance. In this Central and North Burnett Times photo, "Blue" Moir and Harry Thomsett display their shields. Deputy Conservator Peter Cranny (second from left), Monto District Forester Ken Waugh (centre) and Primary Industries Minister Ed Casey officiated.

## Staff Quality and Morale

**Staff Training:** Normal management and supervisory training activities were cut back due to significant organisational changes.

However, all personnel were addressed on the principles of a staff development and review scheme launched in October. Healthy study and research assistance levels were also maintained, with nine percent of salaried staff receiving assistance. In addition, full benefits were extended to wages staff and payment of higher education contributions introduced.

### Staff Development and Review Scheme S.D.R.S.:

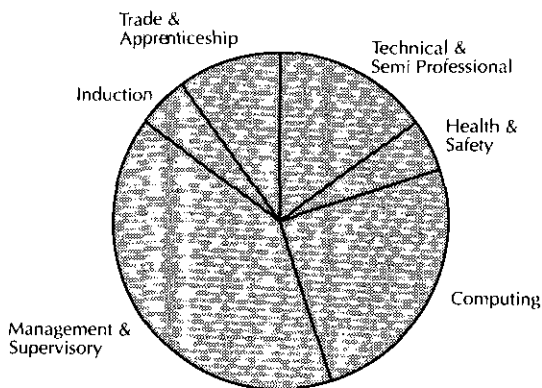
The Staff Development and Review Scheme was formally implemented for all salaried staff on 10 October 1989.

The scheme is designed to assist staff to adapt to changing workplace conditions, and it provides a basis for planning and reviewing individual performance in an open and participative way. Under S.D.R.S. salaried staff at all levels within the Service are required to identify and agree upon a list of principal duties and responsibilities. An enhanced awareness of work unit and organisational goals is also promoted.

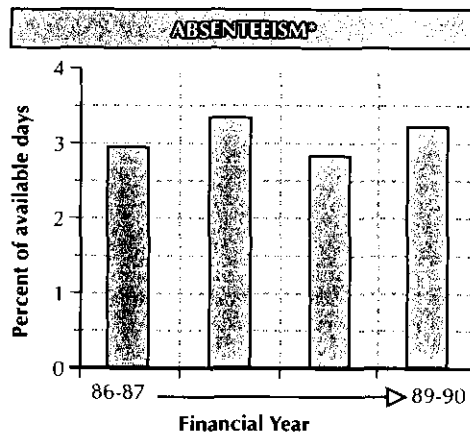
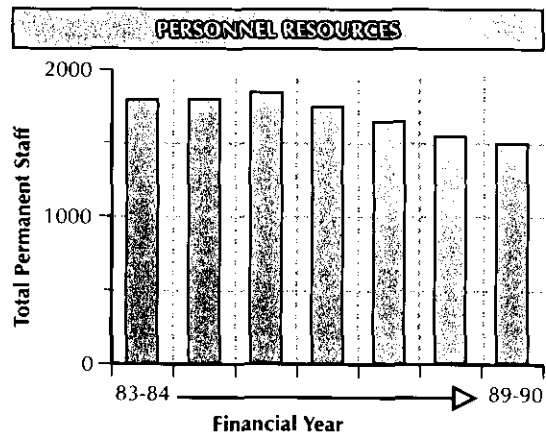


"Flashes" staff newsletter is published and circulated every month to Forest Service personnel throughout Queensland, to enhance information exchange between widespread work units.

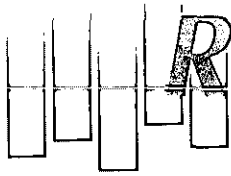
## STAFF TRAINING



Estimated Training Manhours spent = 6600



\* Salary staff only - excluding Rec. Leave, Long Service Leave & Statutory Holidays



# Review of Operations

## Native Forest Production Program

### Description

The native forest production program is concerned with the sustainable production and sale of forest products (excluding quarry material) from natural forests contained within the permanent Crown reserves comprising state forests throughout Queensland. At 30 June 1990 there were 3 978 321 hectares of state forest managed under this program.

Native forests yield a wide variety of commercial timber products including plylogs, sawlogs, power poles, girders, sleepers, landscaping and fencing materials. While timber production is the primary aim of management on state forests, the Forest Service's commitment to multiple use management ensures provision of a range of additional important community benefits. These additional products and benefits include recreation, clean water, honey, grazing, fauna habitat, flora conservation, and protection of special features of historical, cultural, scientific, aesthetic and landscape importance.

### Goals

- To efficiently and effectively manage reserved native forest for sustainable timber production, while ensuring that the broader State requirements for protection of water catchments and maintenance of other forest values and benefits are met.
- To ensure for each subprogram that annual net revenues are maximised and that revenue is at least equivalent to costs.
- To contribute to the development and long-term viability of efficient, native forest-based processing industries in Queensland.

### Key Result Areas

The following key result areas have been identified as critical to the successful achievement of native forest program goals.

**Sustainable Timber Production:** Sustainable timber production is a subset of ecologically sustainable forest management. Factors which contribute to ecological sustainability include:

- Logging systems which are compatible with the silvicultural characteristics of the forest, especially in connection with the regeneration cycle;
- Adequate protection of streams and other watercourses by the retention of buffer strips;
- Exclusion from logging of sensitive slopes, soils, habitats and landscapes;
- Exclusion from logging of special management areas for scientific reference, feature protection and recreation;
- Pre-operational logging planning designed to control the extent of site disturbance through the location and drainage of roads, snig tracks and loading ramps; and
- *Minimisation of disturbance to the residual stand through treemarking.*

The essential consideration in the sustainability of forest management systems is whether or not the management strategies can maintain the forest ecosystem in an ecologically sustainable way which ensures the continued viability of biological communities, the maintenance of forest values, and the preservation of genetic diversity.

Indicators of sustainability are being developed, covering areas such as:

- The percentage of logged stands effectively regenerated
- Fire losses expressed as a percentage of the total estate
- Incidence of indicator weed species, pathogens, insect pests, etc
- Trained observer ratings of current field operations.

**Protection of Water Catchments:** Forest cover has an important influence on the quality and quantity of water flowing from catchment areas. Success in preserving water catchment values depends on the forest cover and on controlling the amount of soil disturbance during logging operations.

Logging guidelines are designed to limit the impact of logging operations on factors such as water quality and soil erosion. Location of creek and stream crossings, retention of buffer strips along water courses, locations and drainage of roads, snig tracks and loading ramps, and exclusion from logging of steep areas, all influence catchment protection and are included in the pre-operational logging plans.

**Maintenance of Other Forest Values and Benefits:** The success of production management as one of the components of a multiple use management style is linked to the maintenance of other forest values and benefits such as forested landscape values, habitat values, honey production, and the educational values of the forest.

Maintenance of these values through the designation of specialised management areas is a key strategy, and the extent to which such areas are set aside is a measure of success in the program.

**Efficient Operations:** Key components of the Service's expenditure in this program relate to marketing and protection costs. Marketing costs per cubic metre of timber harvested and fire protection costs are indicative performance statistics.

**Net Revenue Maximisation:** Traditionally there has been great emphasis placed on cost control in native forest management. However, the same rigour has not been applied to revenue. The organisation's ability to successfully argue for royalty increases has in the past been constrained by the absence of clear commercial goals. The goal of maximising net revenue has enabled the Forest Service to successfully argue for real royalty increases for the first time in many decades.

**Sales Policies and Procedures:** The Forest Service recognises that its wood pricing policies and procedures exert a significant influence on industry development and viability. Over the past 15 years, hardwood royalties have been adjusted in keeping with movements in the Consumer Price Index. However, with the adoption of program management procedures and the increasing emphasis on financial performance, the Forest Service has negotiated substantial real price increases in the native forest industry sector.

The ramifications of these price increases are twofold. First, they acknowledge the increasing pressures being placed on native forests to supply a range of benefits. Second, such increases encourage the native forest milling industry to become more efficient and direct greater attention to higher value added products.

**Supply Commitments:** The Service contributes to the development and viability of the processing industries by seeking to maintain a stable supply of timber from Crown native forests. Mills processing Crown sawlogs generally have twenty-year supply agreements as well as a five-year resource entitlement which has annual performance targets.

At the end of each five-year period, a review is conducted of both the available resource and the performance of participating mills. The available resource is then reallocated to existing industry according to individual mill performance.



*Good roads help keep forests healthy. Regular maintenance of the Service's thousands of kilometres of forest roads ensures access for inspection and firefighting, and also for the public to enjoy its native forests. Here, a new Forest Service road grader is trialled in Daisy Hill State Forest near Brisbane, with Forest Ranger David Pengelly directing operations.*

## Performance Indicators

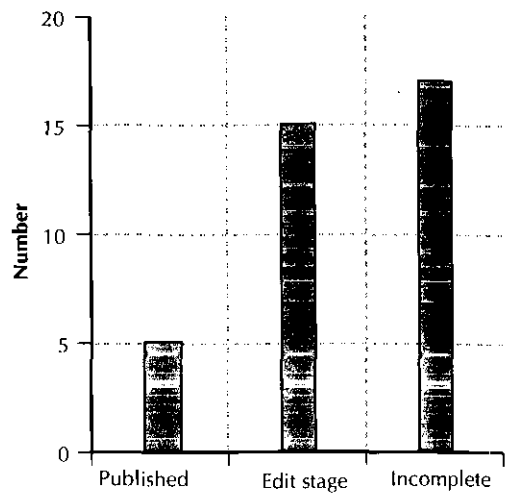
NATIVE FOREST PRODUCTION PROGRAM		
	1988-89	1989-90
Revenue	\$6 497 638	\$8 071 507
Expenditure	\$11 363 291	\$11 414 875
Revenue/ expenditure ratio	0.57	0.71

## EXPANSION OF SPECIALISED MANAGEMENT AREAS (gazetted hectares)

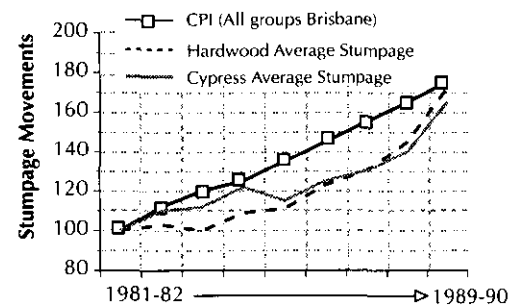
	1985-86 & Previous	1986-87	1987-88	1988-89	1989-90	Totals
Feature protection areas	**5790	-	16	-	2	5808
Forest drives	na	-	-	-	19	19
Scientific areas	13123	4	2609	2160	2751	20647
State forest parks	-	435	-	81	47	563
	18913	439	2625	2241	2819	27037

\*\* Formerly Beauty Spots

## MANAGEMENT PLAN PRODUCTION



## MOVEMENT IN NATIVE FOREST STUMPAGES

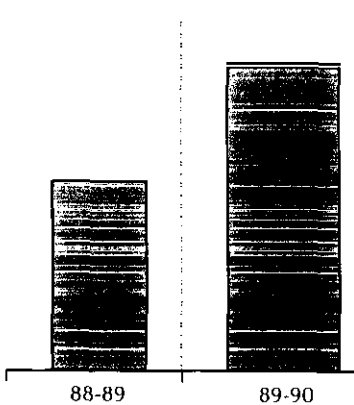


Financial Year

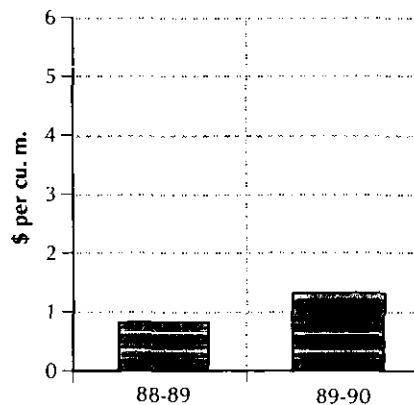
\* Average Stumpage is calculated by dividing total revenue by total volume removed.

## NATIVE FOREST FIRE PROTECTION

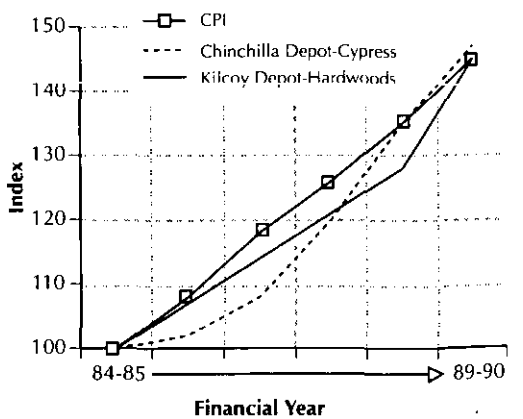
Cost per cu. m. of wood sold



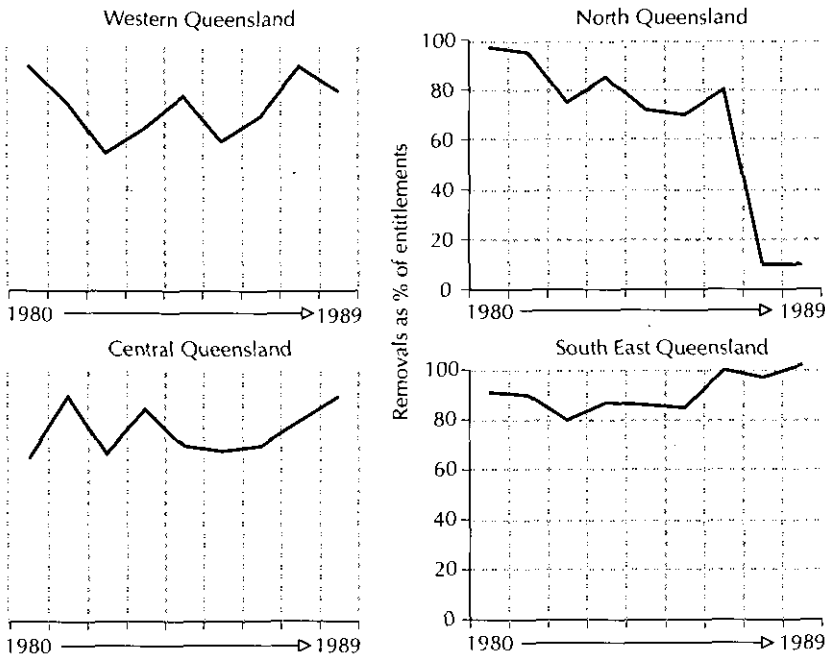
Cost per hectare of area protected



## MOVEMENTS IN NATIVE FOREST DEPOT PRICES



## NATIVE FOREST SALES PERFORMANCE



\* Native forest performance data includes State Forest & Other Crown Forests (Other Crown Forests are most significant in Central and Western Queensland)

## Achievements

**Financial Performance:** The revenue/expenditure ratio for the program showed a marked improvement on the previous year's performance. The improvement from 0.57 to 0.71 reflects the application of goal-oriented management.

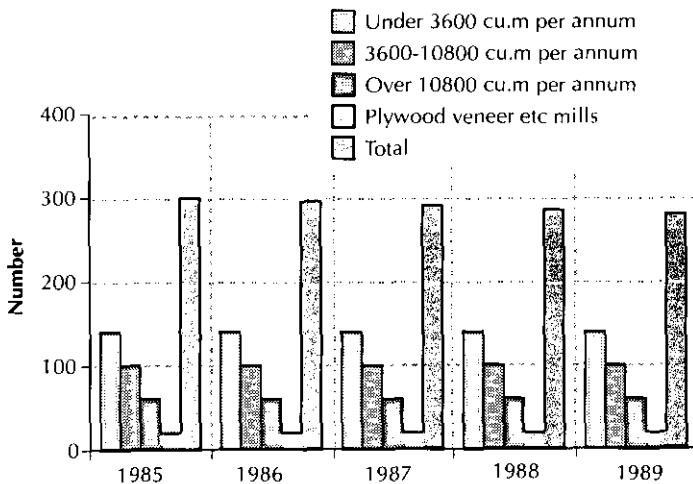
**Real Increases in Mill Log Stumpages:** Following negotiations between members of the relevant divisions of the Queensland Timber Board and the Forest Service, agreement was reached for real increases in mill log stumpages and royalties from 1 September 1989. Hardwood royalty increases of \$8 per cubic metre are being phased in by 1 January 1991 for hardwood and 1 January 1992 for cypress.

**Forest Fauna Studies:** Zoologists have produced comprehensive listings of native fauna occurring on state forests, so that management plans can make allowances for species and their habitats. Substantial information has also been compiled on the faunal impacts of logging in the Conondale Ranges north of Brisbane.

**Cypress Pine Growth Model:** The establishment of detailed yield plots in cypress pine forests began in 1939; some of the plots have been remeasured 16 times since then. Studies of the 120 plots have yielded data on tree increment, mortality and reproduction rates, which is being used to update the Forest Service's growth model for cypress pine.

**Land Use Planning:** Preparation is well advanced on management plans for native forest areas, with public comment to be sought before finalisation. Development proposals, including those for mining tenements, were also examined during the year, with a view to minimising or negating adverse impact on the forest areas concerned.

## NUMBER OF OPERATING SAWMILLS BY CAPACITY CLASS



\* Operating Sawmill Numbers include both native forest & plantation based establishments. In 1989/90 the number of sawmills processing predominantly plantation softwoods was estimated at 50 mills

# Review of Operations Plantation Production Program

## Description

The Queensland Government initiated its plantation establishment program in 1921. Initially, the native species, hoop pine, was chosen for plantation purposes. However, the shortage of suitable land prompted the introduction of more adaptable exotic softwood species several years later.

It was intended that these plantations would assist in the development of a broad industrial base for the State, while at the same time creating regional employment opportunities for its people.

A total plantation resource of 173 000 hectares has been established to date, using technology developed in an extensive research and development program. A number of processing industries are based on the thinnings component of the resource and in recent years, the valuable final crop harvest from a number of large plantation centres has been committed to long-term sale agreements.

The Forest Service's primary role in this program is the establishment and maintenance of core plantation resources in key regional locations throughout the State. It is intended that this approach will provide the stimulus for development of further major industrial processing plants.

*ACI Timber Products' new sawmill at Imbil uses the latest technology to achieve maximum usage of hoop pine logs harvested from nearby plantations. One television screen gives the operator a radial diagram of each log, so he can plan his cuts. The other screen gives a close-up of the sawing process.*



## Goals

- To contribute to the development and long-term viability of efficient wood-based industries in Queensland by establishing and managing forest plantations, and adopting appropriate sales, pricing and long-term supply policies.
- To ensure that plantations on state forests are established and managed in an environmentally responsible manner.
- To maximise the return to the State from funds invested in plantations while ensuring a minimum return on investment of three percent real.

## Key Result Areas

**Plantation Area Established:** The setting of regional planted area targets is a key strategy adopted in the plantation production program.

While the scope for any large scale expansion of the program is constrained by the availability of suitable land, a key philosophy adopted by the Forest Service in assessing the need for any expansion of the Crown estate is that such expansion should be consistent with the notion of the Crown providing only the core plantation resources necessary for the establishment of efficient processing industries.

The Service is proceeding with the definition of regional targets via a strategic assessment of key economic, financial and environmental factors at all plantation centres. The prospects for private sector plantings will be considered in these assessments. Other factors to be considered include:

- land availability/land use conflicts
- industry considerations
  - existing commitments
  - scale economies
  - proximity to markets
  - export potential
- plantation economics
- funding availability
- environmental constraints

The development phase of the plantation production program is nearing completion as the plantations mature, and an increasing amount of first rotation resource is committed to long-term supply agreements. The emphasis is increasingly moving to replanting harvested areas rather than establishing new plantations.

**Sales and Pricing Policies:** The Forest Service's sales and pricing policies in plantations are pivotal to the establishment of efficient and effective industrial wood processing units within the State.

The recent upsurge in availability of plantation final crop log timber has had a significant impact on pricing policies. These increasing quantities of plantation timber have been offered on an open market, the prices obtained being set by the industry's ability to pay in the face of competition from interstate and overseas producers. The principal caveat on these recent sales has been that the resource is processed within the State. This had led to major industry investment in Queensland in the past decade.

In recent years, the Queensland Forest Service has entered into long-term sale agreements with companies for the purchase and processing of 450 000 m<sup>3</sup> per annum of final crop hoop pine and exotic pine plantation timber from the Beerburrum, Imbil, Yarraman, Gympie, Maryborough and Murgon districts.

Total supply guarantees from existing plantations to local wood processing industries currently exceed 1.1 million m<sup>3</sup> per year and this figure will rise to around 1.5 million m<sup>3</sup> by the year 2000.

**Supply Commitments:** Major plantation sales in Queensland are subject to separate agreements usually covering a duration of twenty years. These agreements are based on competitive proposition calls. Base prices are subject to an annual cost-of-living adjustment as well as a five-yearly general review, which considers factors such as the price of competitive timber products. All purchasers are also subject to minimum performance clauses.

**Environmental Integrity:** Environmental factors form an integral part of planning and design considerations associated with plantation establishment. Factors such as soil protection through the use of cover crops, retention of stream buffer strips, special treatment of steep areas, erosion control through management of runoff water, and retention of areas of native vegetation for fauna and flora habitat, are all aimed at minimising the impact of the establishment phase. Detailed guidelines have been established to ensure appropriate planning during plantation development.

The degree to which guidelines are observed in operational practice is the measure of success in achieving the goal of environmental responsibility.

**Maximisation of Return from Invested Funds:**

The concepts of internal rate of return and net present value have been adopted as microeconomic planning tools for silvicultural decision-making.

Conceptually, return on investment can be interpreted in a variety of ways and the Forest Service is negotiating appropriate performance measures which may include return on assets, return on gross revenue or return on equity. The annual calculation of plantation value using discounted cash flow methodology is an important component of the performance equation in the Plantation Production Program.

The Forest Service has compiled indicative valuations for its plantation estate for both 1988-89 and 1989-90 using this discounted cash flow procedure. While the methodology has still to be refined and ratified, the present standing value of the overall plantation estate is estimated at \$966 million. This compares with an estimated valuation in 1988-89 of \$880 million.

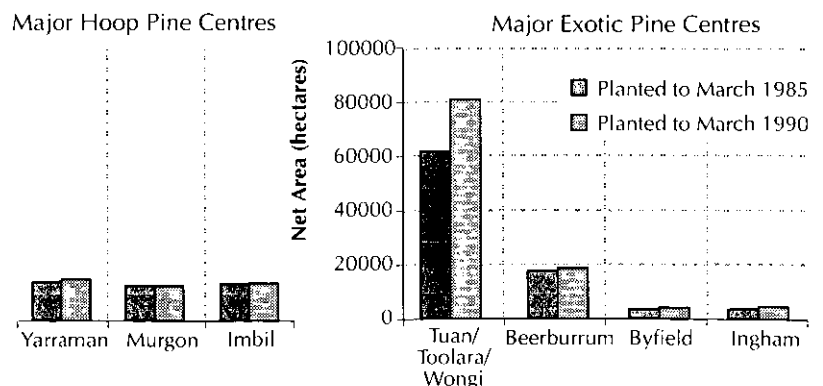
**Performance Indicators**

PLANTATION PRODUCTION PROGRAM		
	1988-89	1989-90
Revenue	\$22 725 946	\$25 235 859
Expenditure*	\$38 009 481	\$38 817 753
Indicative plantation valuation**	\$880 000 000	\$966 000 000
Gross revenue per employee	\$28 022	\$31 792

\* Expenditure excludes debt service charges and asset management

\*\* Using discounted future cash flow methodology

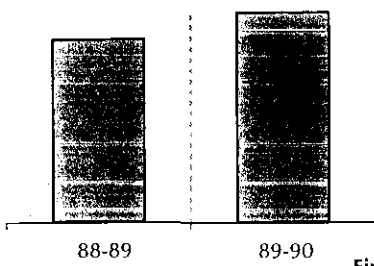
**THE PLANTATION ESTATE (MAJOR CENTRES)**



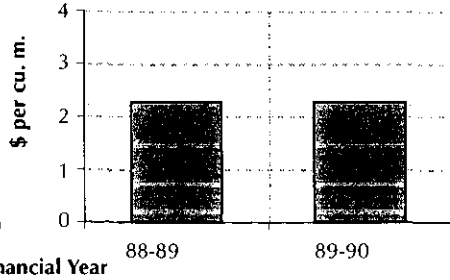


**PLANTATION COST MOVEMENTS**

Protection Costs per cu. m. of wood sold

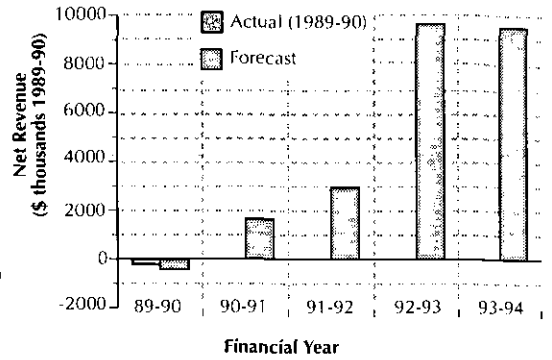


Marketing Costs per cu. m. of wood sold

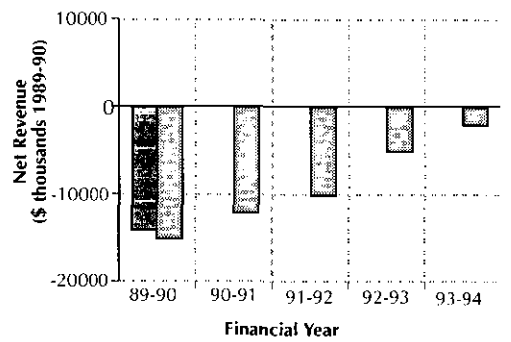


**PLANTATION FINANCIAL TARGETS**

Hoop Pine Net Revenue\*

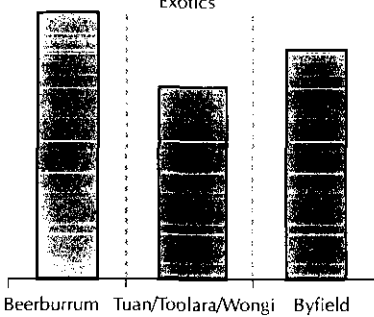


Exotic Pine Net Revenue\*

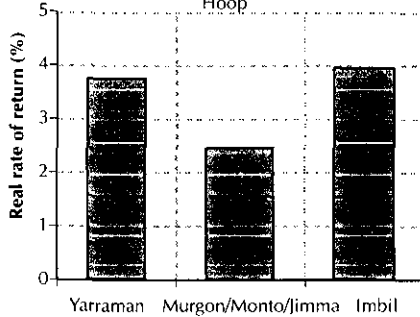


**INDICATIVE EARNING RATES NEW PLANTATIONS\***

Exotics



Hoop



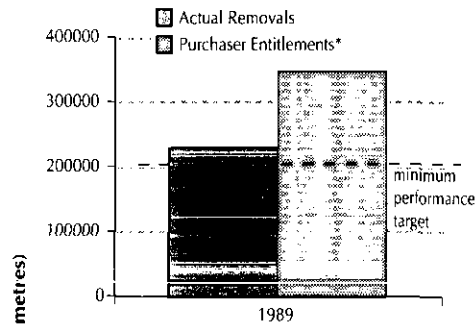
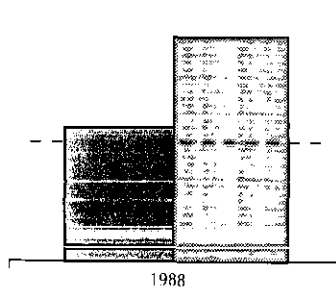
Major Plantation Centres where final crop sales exist

\* Internal rates of return % for the first rotation plantings using 1988-89 costs & prices

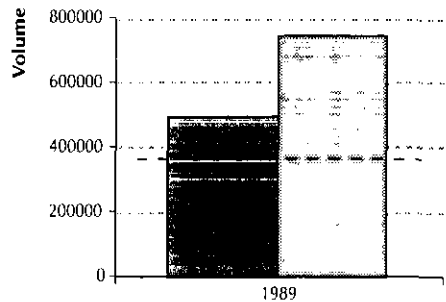
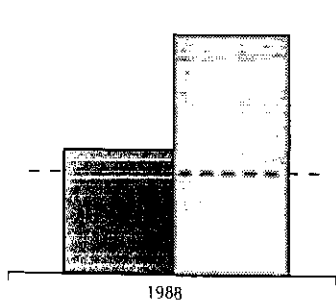
\* Net Revenue = Gross Revenue - Expenditure (excluding debt service charges)

**PLANTATION SALES PERFORMANCE**

HOOP PINE PLANTATIONS



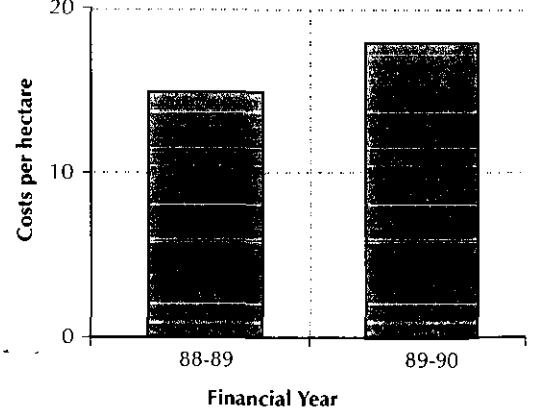
EXOTIC PINE PLANTATIONS



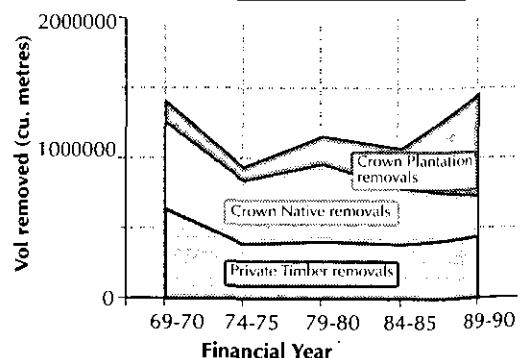
\* With the phasing in of new processing capacity some purchasers were allocated entitlements in 1988 & 1989 which they were unable to use. Minimum performance targets were not set for these entitlements.

**PLANTATION COST MOVEMENTS**

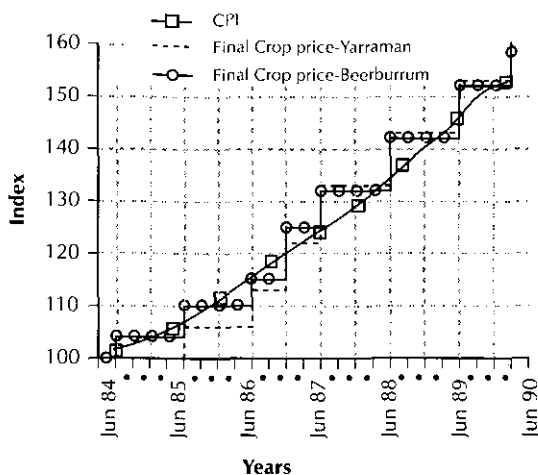
Fire Protection expenditure per planted hectare



**MILL LOG REMOVAL TRENDS**



### MOVEMENTS IN PLANTATION FINAL CROP ROYALTIES



## Achievements

### Industry Developments:

- CSR Softwoods' high technology mill at Caboolture presently processes 120 000 m<sup>3</sup> per year from Beerburum and Yarraman state forests - and by the end of 1990 will process an additional 80 000 m<sup>3</sup> per year from private forests.
- A plant to dry and dress up to 120 000 m<sup>3</sup> per year of sawn pine has been built by Hyne & Son Pty Ltd at Tuan, near Maryborough. A sawmill to process a similar quantity is also now in production.
- Laminex Industries' medium density fibreboard plant at Toolara, east of Gympie, processes 160 000 m<sup>3</sup> of pulp logs per year.
- ACI Timber Products has completed construction of a sawmill at Imbil to process around 100 000 m<sup>3</sup> per year of plantation pine from the Mary Valley and Murgon area. The mill cost around \$25 million and is undergoing working up trials.
- Hyne & Son Pty Ltd will upgrade their mill at Melawondi, near Gympie, in 1990 to process 70 000 m<sup>3</sup> per year of hoop pine thinnings and final crop.
- Veneer mills at Ipswich, Brisbane and Beerwah are peeling some 45 000 m<sup>3</sup> per year of plantation pine logs, for plywood manufacture in Queensland and southern states.
- In north Queensland, sawing and peeling of 16 000 m<sup>3</sup> of thinnings and final crop hoop pine, plus exotic thinnings, is being conducted at Ravenshoe.

- Koppers, Permalog and Sunshine Pine are currently treating about 50 000 m<sup>3</sup> of round timbers from plantation thinnings at Beerburum and Tuan/Toolara.

**Tree Nursery Rationalisation:** Rationalising the hoop pine production nurseries was achieved during the year, with upgrading of the facilities at Kenilworth and Benarkin and closing down of the Gallangowan nursery. Larger production capacities at Kenilworth and Benarkin will introduce efficiencies of scale.

**Tree Breeding Results:** The end result of the tree breeding activity has been more profitable commercial plantations of both native and exotic pines. A significant proportion of total seed production in Caribbean pine now consists of families of superior field performance. This has been achieved through operational-scale controlled pollination at Byfield. Additionally, the Service aims to mass-produce seed of hybrid pines. Twenty-five kilograms of hybrid seed was harvested, which is expected to establish some 500 hectares of plantation. The production, proving and operational use of hybrids is a unique achievement of the tree breeding effort in Queensland. A clonal seed orchard was established at Yarraman to produce hoop pine trees with two- to three-metre-long stem sections between whorls of branches. These long internode trees will be of higher value for timber.

**Root Growth Enhanced in Containers:** The use of copper carbonate, on the inner surfaces of containers used for raising exotic pine planting stock for second rotation establishment, has been instrumental in promoting lateral root development. The root structures of container-grown plants so treated are equivalent to those produced in open root planting stock.

**Native Fauna Needs Recognised:** Results of studies by forest zoologists on habitat needs of native fauna, especially birds, in the coastal exotic pine plantations were taken into account in planning the design of retained areas of native forest in the region.

**Cost Savings Through Stump Rot:** Forest pathologists have had significant success in developing techniques to decompose stumps left after final crop harvesting of exotic pine plantations. This work has the potential to allow substantial cost savings in the second rotation.

**Plantations Provide Majority of Mill Logs:** The plantation estate is the principal source of Crown mill log timber in the State. It produced more than 62 percent of the total Crown mill log removals for the year. In terms of sawn product this represents sales for locally based industry of around \$400 million a year - all of which is import replacement.

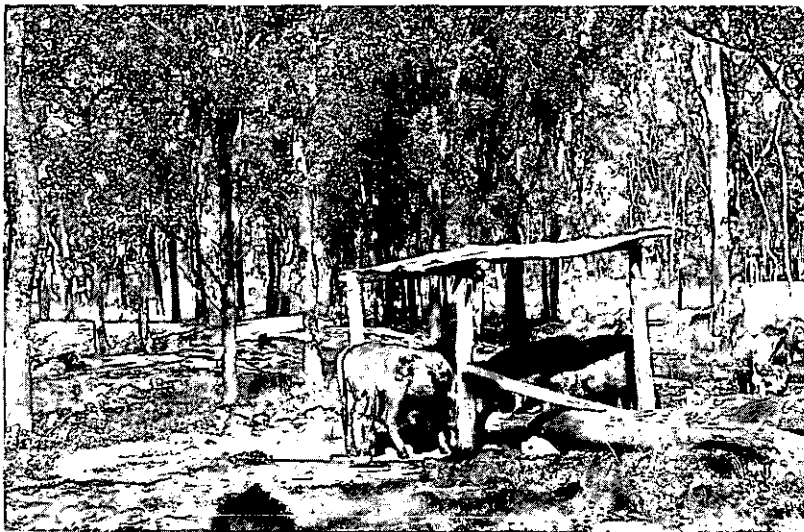
# Review of Operations

## Other Resource Sales Program

### Description

This program consists of three components - Other Crown Forests, Quarry Material Sales and Consultancies - all of which are commercially oriented.

The Forest Service discharges its responsibility for the sale of quarry materials from state forests and other Crown lands through the Quarry Materials Sales subprogram. The sale of forest products growing on Crown land (other than state forests) is managed through the Other Crown Forests subprogram, and the Consultancies subprogram is directed principally towards capitalising on the skills and expertise of specialist Forest Service staff engaged in its other programs.



### OTHER CROWN FORESTS SUBPROGRAM

The Forest Service has no charter to directly manage the native forests growing on Crown lands other than state forests. Its role is limited to *supervising and controlling the harvesting of forest products* from these areas in an environmentally responsible manner. The majority of such Crown lands are used primarily for pastoral production and privately managed under lease from the Department of Lands.

### Goals

- To harvest forest products from specified Crown lands in accordance with the long-term needs of the community, while taking into consideration the reasonable land use management requirements of the agencies in which the land is vested.
- To ensure forest harvesting operations are carried out in an efficient, effective and *environmentally responsible manner*.
- To supplement the resource needs of Queensland-based forest product processing industries, by promoting the retention of forest areas and the maintenance of forest productivity.
- To ensure that annual net revenues from forest product sales are maximised and that revenues are at least equal to costs.

Above: Many State-owned land holdings have stands of native forest that can be harvested to provide forest products such as sawlogs and lencing timber. Under the Other Crown Forests Subprogram, the Forest Service ensures that the harvesting is done in an environmentally responsible manner.

Left: Through their consultancy work, Forest Service personnel have forged strong technological bonds with Pacific and Asian neighbours. Here, consultancies manager Dick Pegg and a Chinese colleague, Li Hai Jia, examine flower buds on *E. urophylla* at the Dongmen State Forest Farm Eucalypt Afforestation Project in the People's Republic of China.

## Key Result Areas

**Harvesting of Forest Products:** Success in this result area is measured by the extent to which harvesting of forest products from other Crown lands contributes to the resource needs of the sawmilling industry.

In the closely settled regions of the State, native forests on other Crown land are an important supplement to the state forest network of resources, while in the more remote areas they are often the only local source of supply of forest products including sawlogs, power poles, girders, fencing timber and sandalwood. Many regional processing plants are dependent on the forest products harvested from other Crown lands.

**Efficient Harvesting Operations:** The bulk of the Service's expenditure in this subprogram are marketing costs. A key performance statistic is therefore marketing cost per cubic metre of timber harvested.

**Maintenance of Forest Productivity:** Factors critical to success in this goal relate to promoting the retention of forests and their maintenance in sound condition. This key result area is addressed by acquisition of suitable areas of forested Crown land for permanent reservation as state forest.

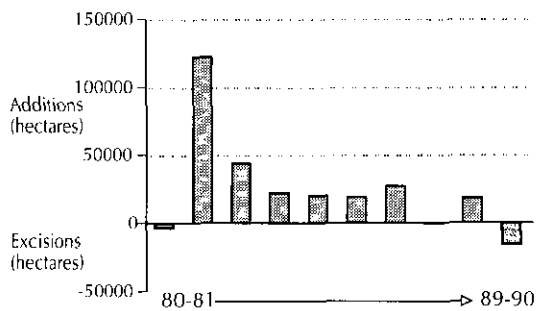
**Net Revenue Maximisation:** As in the native forest production program, the Service has supplemented cost control measures with real royalty increases negotiated with industry. Success in this key result area is measured by the revenue/expenditure ratio for the subprogram.

## Performance Indicators

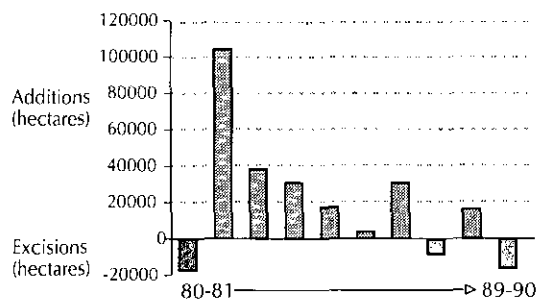
OTHER CROWN FORESTS		
	1988-89	1989-90
Revenue	\$3 024 485	\$2 142 335
Expenditure	\$1 906 969	\$1 868 660
Revenue/ expenditure ratio	1.59	1.15
Total removals from other Crown Forests	na	87 742 m <sup>3</sup> *
Removals from other Crown Forests as a percentage of total Crown Native forest removals	na	21.8%
Marketing costs per cubic metre of wood sold	na	\$12.66

\* Estimate only

### AREAS OF OTHER CROWN FOREST CONVERTED TO STATE FOREST



### TOTAL CHANGE IN THE FOREST ESTATE



Financial Year

Includes acquisitions and excisions from and to freehold land.

## Achievements

The impact of program management procedures is also evident in the expenditure recorded against the Other Crown Forests subprogram, which achieved a real reduction in costs of 8.9 percent.

## CONSULTANCIES SUBPROGRAM

Forest Service staff have developed expertise in a wide variety of forestry and forest products areas, such as tropical and sub-tropical forest management, timber utilisation and preservation, *forest biology*, and *forestry-related training* activities. There is significant demand from outside organisations for access to these skills.

The Forest Service recognises that the co-ordinated marketing of its expertise provides an excellent opportunity to increase revenue and enhance the organisation's reputation. However, the resources available to consultancy activity are those which are normally employed in other core programs. Consultancy activities are therefore only undertaken if they do not impair the attainment of other program goals.

### Goals

- To be recognised as a major source of technical, professional and educational expertise in tropical and sub-tropical forest management.
- To enhance the expertise and qualifications of Forest Service staff through participation in consultancies.
- To ensure revenues exceed costs by at least 10 percent on an individual project basis, except when significant benefits are generated for the Forest Service.

### Key Result Areas

#### Professional Recognition in the Consultancies

**Area:** Apart from the obvious commercial implications, the recognition of the Service as a major source of professional and technical expertise has other advantages, including enhanced staff reputation, increased job satisfaction for staff, and fuller utilisation of resources. Performance can be measured by the number and variety of consultancies undertaken.

The Service also provides a forest-based education and training service to the Australian and overseas community through the Forestry Training Centre at Gympie. This Centre offers accommodation and conference facilities for use by both public and private sector groups. Performance is measured by Training Centre occupancy rates.

**Enhancement of Staff Expertise:** Job skill benefits and expertise derived from an active consultancies subprogram are substantial. The measure of performance is the number of staff participating in consultancies projects.

**Net Revenue Maximisation:** Performance is measured by the revenue/expenditure ratio.

The financial goal is framed in terms of a ten percent return on expenditure on an individual project basis. However, as costs cannot be captured on an individual project basis, the defacto performance indicator becomes the revenue/expenditure ratio for the subprogram.

### Performance Indicators

	1988-89	1989-90
Long-term consultancies undertaken (number)		
a) Locally	8	10
b) Overseas	1	2
Short-term consultancies undertaken (number)		
a) Locally	1	2
b) Overseas	5	6
Staff involved in consultancies (man months)		
a) Long-term Projects	174	162
b) Short-term Projects	6	7
Gympie Training Centre		
Accommodation (man nights)	7655	8542
Conference hire	\$22 340	\$28 500
Revenue	\$2 161 929	\$2 054 370
Expenditure	\$1 886 146	\$2 014 872
Revenue/expenditure ratio	1.15	1.02

### Achievements

**Dongmen Project Completed:** The successful completion, after eight years, of the Dongmen State Forest Farm Eucalypt Afforestation Project in the People's Republic of China was a major achievement of the subprogram for the year. This project was the first long-term project managed by a Queensland Government organisation for the Australian International Development Assistance Bureau. The project is widely acclaimed as being very successful in demonstrating in technical and economic terms the benefits of adapting new species and techniques to eucalypt plantation forestry in China.

**Vanuatu Forest Survey Project:** The Forest Service in conjunction with the Tropical Resource Assessment Group from CSIRO was awarded an AIDAB-funded consultancy for a national forest resource survey in the Republic of Vanuatu.

**Chinese Seed Supplies Investigated:** The Forest Service provided an officer for a pre-appraisal of a proposed World Bank forestry sector loan to investigate seed supplies and plant propagation in the People's Republic of China.

**Fiji Seasoning Research Underway:** An agreement was made for the Forest Service to provide an officer to conduct kiln seasoning training, and to advise on the development of procedures and techniques for efficient seasoning research.

**Malaysia Feasibility Study:** A Forest Service officer was part of a team organised by the Swedish company, Silviconsult, and funded by the Asian Development Bank to investigate the feasibility of rehabilitating degraded natural forests in three states of Peninsular Malaysia.

## QUARRY MATERIALS SALES SUBPROGRAM

The Forest Service is a significant supplier of quarry materials. It controls quarrying operations on state forests as well as on a wide range of other Crown lands. With the continued regional economic development of the State, quarry materials removals are expected to increase.

Quarrying operations are often incompatible with other forest management objectives. Therefore, the Forest Service has sought to minimise the number of quarry sites on state forests where alternate supply sources exist. However, in some areas of the State e.g., the coastal strip from Noosa to Coolangatta, non-state forest quarry sites are often unavailable. The Forest Service recognises the need to respond positively to such situations.

### Goals

- To ensure that all quarrying operations controlled by the Forest Service are conducted in accordance with approved environmental standards.
- To ensure that, as far as possible, adequate supplies of suitable quarry material are available from Crown land, to assist in the long term regional development of the State.
- To maximise net revenue from quarry sales without impeding the State's economic development.

### Key Result Areas

#### Maintenance of Environmental Standards:

Success is achieved through the implementation of environmental standards.

Forest Service guidelines provide for environmental impact assessment procedures under certain circumstances, and the preparation of working plans covering the conduct of operations and rehabilitation of quarry sites.

A performance indicator is the percentage of quarry material removed from quarries without approved working plans.

#### Quarry Resource Necessary for State

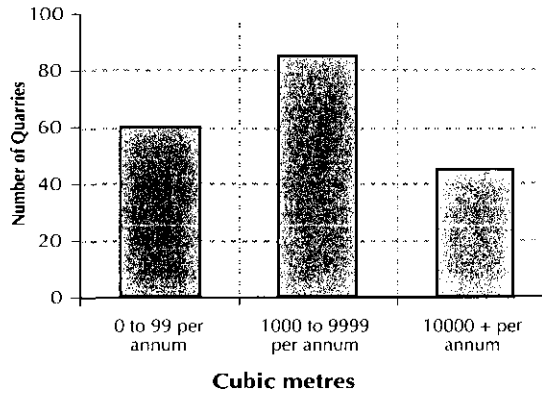
**Development:** Measures relating to the number of operating quarries and their capacity to supply the needs of the State, and also the level of activity associated with searching for new resources of quarry material, are used to measure performance.

**Net Revenue Maximisation:** The strategy used to maximise revenue includes the use of performance guarantees and competitive tendering for all major quarry sales. Revenue/expenditure ratio for the subprogram is the performance measure.

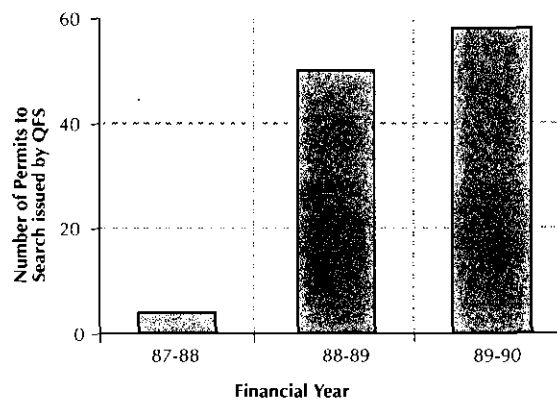
## Performance Indicators

QUARRY MATERIALS SALES	1988-89	1989-90
Revenue	\$1 127 425	\$1 686 567
Expenditure	\$363 412	\$452 571
Revenue/Expenditure Ratio	3.10	3.73

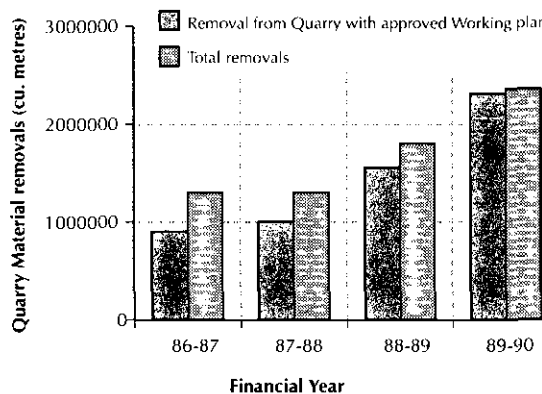
### NUMBER OF OPERATING QUARRIES BY SIZE CLASS



### QUARRY MATERIALS EXPLORATION



### QUARRY MATERIAL REMOVALS



## Achievements

**Removals Increase 33%:** Quarry material removals from Crown lands increased by 33 percent in 1989-90 to a record 2.16 million cubic metres. The revenue/expenditure ratio for the subprogram registered a commensurate increase - from 3.10 to 3.73.

# Review of Operations

## Forest Services Program

### Description

This program is concerned with the non-commercial or socially oriented functions of the Forest Service. Activities undertaken include the provision of recreation services on state forests, research, regulatory and advisory services in connection with timber utilisation, and extension services regarding the planting, care and retention of trees with specific regard to the rehabilitation of degraded land.

There are three subprograms within the Forest Service program.



*Recreation on state forests is one of the many community benefits made possible by multiple use management. Here at Daisy Hill State Forest Park, near Brisbane, Forest Ranger Mark Venz chats with a family group enjoying the surroundings.*

### RECREATION SUBPROGRAM

The community expects to be provided with nature based recreation opportunities. To meet this expectation, the Forest Service has developed and currently manages 66 State Forest Parks throughout Queensland. All of the parks provide picnic facilities, and 38 provide camping facilities of varying standards.

Visitors to State Forest Parks pursue activities such as bushwalking, swimming, photography, nature observation and orienteering. Other areas of state forest are also popular for less intensive recreational activities such as horseriding, hiking and scenic driving. Activities such as car rallies, trail bike riding and competitive foot races are allowed where no other alternative venues exist and other forest uses and values can be adequately protected.

### Goals

- To satisfy community demand for quality nature-based recreation opportunities on state forests, having regard for the other management objectives for these forests.
- To enhance public awareness of the natural and cultural values of state forests and the community benefits which accrue from the multiple use management of these forests.
- To apply the 'user pays' principle where the direct beneficiary of the service is identifiable and fee collection is cost-effective.

### Key Result Areas

**Provision of Recreation Opportunities:** The Forest Service realises that it cannot fully meet community demand for nature-based recreation, and gives priority to providing those opportunities which are most appropriately available on state forests. The results for this goal are measured in terms of the number and type of existing recreation facilities.

**Compatibility with Other Forest Uses:** Success can be measured by how well activities under this subprogram integrate with the other values and uses of the forest areas in which they are located. A measure of performance is the number of recreation plans developed.

**Public Awareness of State Forest Values:** The Forest Service recognises its responsibility to promote community understanding of its programs and the benefits of multiple use management. An interpretive role in recreation is seen as an effective means of achieving this. The key result area is public awareness of the values of state forests and success is measured by the number of visitors to recreation areas and the number of camping permits issued.

**Application of the 'User Pays' Principle:** An increasing percentage of the Service's expenditure on recreation is directed towards the maintenance and servicing of existing facilities. The Service's ability to continue to provide quality recreation facilities for the public therefore depends on its being able to recoup a percentage of total expenditure outlays. Results are measured in terms of the relationship between expenditure and revenue in the sub-program.

## Performance Indicators

Recreation Statistics	1988-89	1989-1990
Number of recreation facilities		
Camping areas	38	38
Day use areas	66	67
Forest Drives	12	12
Walking Tracks	53	53
Estimated annual Visitation to SFs		
Day users	1 200 000	1 240 000
Camper nights	400 000	405 000
Camping Permits issued	15 972	16 266
Subprogram Revenue & Expenditure		
Revenue	\$85 028	\$1 591 966*
Expenditure	\$2 861 798	\$4 513 011*
Revenue/Expenditure Ratio	.03	.035
Recreation Plans Completed		
1988-89	1989-90	
Fraser Is Interpretation	Northbrook	
Fraser Is Management Plan	Daisy Hill	
Central Station	D'Aguilar	
Eli Creek	Tinbeerwah	
Lake Mackenzie	Tuan	
Conondale	Yarraman (Draft)	
Scenic Rim	Wet Tropics (Draft)	
Palmerston	Atherton	
Beerburum	Tinaroo Dam	
Imbil		

\* Figures for 1989-90 include Brisbane Forest Park Revenue of \$1 298 521 and Expenditure of \$1 014 452

## Achievements

The predominant achievement in this subprogram in 1989-90 has been the development and adoption of concise goals and strategies upon which to focus effort in the future.

To provide for future management of this subprogram, and enhance technical support services to Forestry Districts, the recreation management section in Forest Development Branch has been expanded.

**Brisbane Forest Park:** During 1989-90 the Forest Service accepted responsibility for the administration of Brisbane Forest Park from the Department of Environment and Heritage.

**Legislative Changes:** The Fraser Island Public Access Act was repealed on 1.7.89 and replaced with the Recreation Areas Management Act. Significant progress has been made in a major review of this legislation in consultation with the Department of Environment and Heritage.

**Design Standards Revamped:** New recreational furniture standards were developed and adopted and a review of the Service's colour scheme and roadside signage was initiated and largely completed.

**Facilities Improved:** Recreation facilities were constructed or redeveloped at Central Station (Fraser Island), Booloumba Gorge, Mt Tinbeerwah, Tinaroo Dam and Wongabel (Atherton), Goomburra (Warwick) and the Glass House Mountains.

**Commercial Tours Expanded:** Commercial tour operations on state forest increased, particularly in north Queensland. This is resulting in improved forest-based experiences being available to a broader range of the community. An improved commercial tour permit system developed in association with the Department of Environment and Heritage was implemented and is helping to ensure adequate controls of these operations.

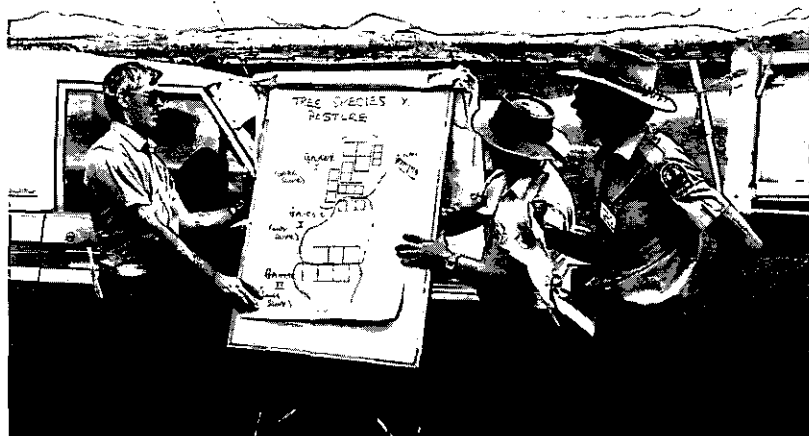


## FOREST EXTENSION SUBPROGRAM

Wide publicity regarding the impact of contemporary lifestyles on the environment has led to a heightened awareness by the general community of the values of trees in protecting soils, maintaining water and air quality, preserving fauna habitat and providing shelter for grazing stock.

Two of the Forest Service's primary goals are to ensure a high level of community awareness of the values and diverse uses of trees and forests, and to encourage the development and sound management of private forest resources.

Land degradation and soil productivity decline are rapidly becoming the most serious problems facing rural Australia. The Service's "Caring for Our Countryside" initiative addresses these important issues through a series of measures aimed at encouraging the retention, regeneration and replanting of trees. Extension services to landholders in connection with commercial forestry - including plantation forestry and agroforestry - are undertaken in this subprogram.



*Forest extension provides research and advisory services to foster the planting of trees by the community for a variety of purposes. Here at a field day held on the Queensland Department of Primary Industries Warril View Research Station, near Ipswich, principal forest extension officer Keith Jennings (left) and principal research officer Robin Yule (far right) discuss the use of trees in a pasture situation.*

## Goals

- To maintain and improve the quality of the rural environment by encouraging and facilitating the planting, care and retention of trees and the rehabilitation of degraded land, and by promoting the role of trees and forests in sustainable land management.
- To encourage the development of private commercial forestry resources throughout the State to supplement timber supplies from state forests and other Crown lands.
- To apply the 'user pays' principle where the direct beneficiary of the service is identifiable and fee collection is cost-effective.

## Key Result Areas

### **Tree Establishment, Maintenance and Retention:**

Forest Service initiatives in this key result area include the provision of tree seedlings, extension advisory services through field officers, a computer-based tree advisory service, public education and tree research programs. Success is measured by the number of plants sold through Service nurseries.

**Rehabilitation of Degraded Land:** Regional extension officers located throughout the State provide on-farm advice in relation to tree farm plans, tree planting techniques and species selection. A measure of performance for this area is the number of farm visits by extension officers.

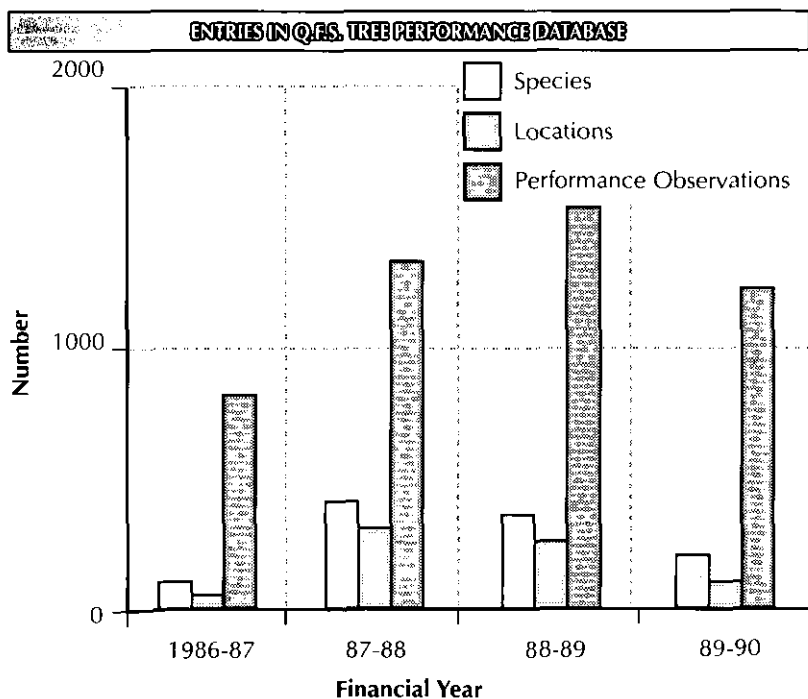
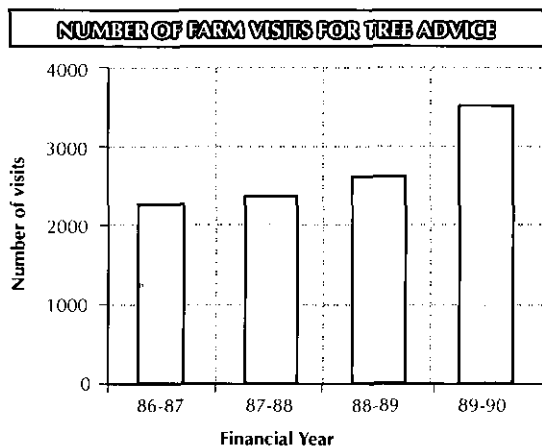
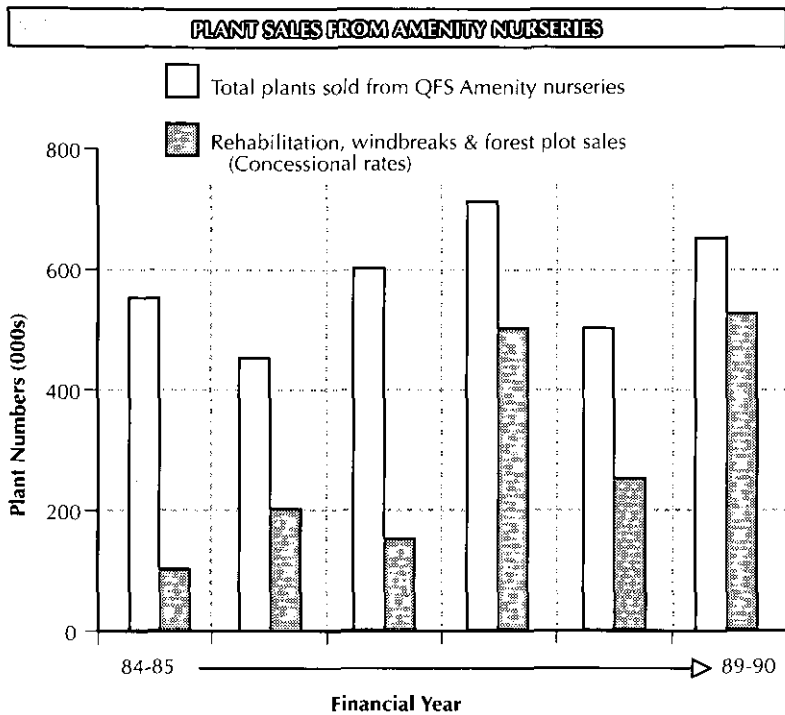
### **Private Commercial Forestry Assistance:**

Assistance to private commercial forestry is provided through the sale of seedlings at concessional rates for the establishment of forest plots and windbreaks. Success in this goal is indicated by the volume of such sales.

**Application of the 'User Pays' Principle:** Results are measured in terms of the relationship between expenditures and revenues in this subprogram.

## Performance Indicators

FOREST EXTENSION SUBPROGRAM		
	1988-89	1989-90
Revenue	\$707 794	\$1 122 524
Expenditure	\$3 610 872	\$4 278 184
Revenue/Expenditure Ratio	.20	.26



## Achievements

**Rainforest Plantations Under Study:** Research work on the growth of rainforest trees in plantations is being carried out by the Forest Service at Atherton, using funds provided by the Australian Rural Research Centre. A growth rate of six metres in eleven months has been obtained with red cedar (*Toona australis*) using "Growtube" artificial tree shelters. The research was featured in the popular television series "Beyond 2000". Results of the studies will be published, and an extension service will be available to local authorities and landholders. Further studies on growing rainforest trees in plantations are also being conducted, using funds from the National Afforestation Program.

**Biological Advisory Services:** An extension biologist based at Indooroopilly dealt with almost 800 public inquiries during the year. Many people asked about using trees to rehabilitate degraded land, and about maintaining tree health in urban and rural environments. Telephone, written and personal inquiries are answered free of charge under this service, while field inspections and laboratory investigations are conducted on a fee-for-service basis.

**Recycling Effluent:** A study is being undertaken at Hervey Bay to investigate the use of domestic effluent in the production of commercial forest crops in coastal areas. The study includes assessment of possible environmental impacts and a cost/benefit analysis.

**Agroforestry Extension is Underway:** Five extension officers and a systems officer have been appointed under the Forest Service's 'Caring For Our Countryside' project, to provide sound advice to the rural community in relation to the retention, replanting and regeneration of trees to complement sustainable agricultural production. The project will provide trees and advice for specific land rehabilitation problems. The Forest Service's computerised tree performance data base, TREDAT, is a major resource for the project. It facilitates the provision of site-specific trees species advice to the public through user-friendly software.

## TIMBER UTILISATION EXTENSION SUBPROGRAM

### Description

Timber utilisation extension can be viewed as a logical corollary to forest growing. 'After market' considerations are important in ensuring that the community receives the maximum benefit from the State's timber resources. The encouragement of a technically competent, stable and profitable timber processing sector is an essential element of this strategy.

As a general principle, the forest products industries are responsible for the marketing of their products, and the Forest Service's involvement in this area is limited to the provision of support services on request, and at cost.

A number of other organisations and authorities play a major role in the field of timber utilisation and extension. These include the timber Research and Development Advisory Council (TRADAC), the Standards Association of Australia and local authorities. The Forest Service does not seek to undertake activities which are incorporated in the role of these bodies, but does seek input into the standards, codes and regulations which are adopted.



*Looking like something out of the "Arabian Nights", the old Queensland Museum in Brisbane was draped in plastic sheeting and filled with methyl bromide fumigant to eradicate West Indian drywood termites. The Forest Service is responsible for restricting the spread of this insect pest in Queensland.*

### Goals

- To effectively contribute to the protection of timber users in Queensland.
- To provide effective timber research and advisory services based on the requirements of the timber processing industries.
- To provide an effective advisory service to the public on aspects of timber utilisation which fall outside the charter of TRADAC.
- To apply the 'user pays' principle where the direct beneficiary of the service is identifiable and fee collection is cost effective.

### Key Result Areas

#### **Regulatory Action and Advice on Defective**

**Timbers:** Regulatory action and advice to timber users on defective timber, and on pests affecting timber, are the principal areas of activity relating to this result area. Results are measured in terms of the number of complaints processed by the Service under the Timber Utilisation and Marketing Act.

#### **Effective Research and Advisory Services to**

**Industry:** The effectiveness of the research and advisory services provided to industry is measured by the number of activities undertaken for which the industry is prepared to pay. Priorities in this area are based on the demand for such services by industry and the scope for full cost recovery for any services provided.

**Effective Public Advisory Services:** Performance is measured by the number of telephone inquiries received.

**Application of 'User Pays' Principle:** The relationship between expenditures and revenues provide the measure of performance.

## Performance Indicators

Revenue from major 'fee for service' activities	1988-89	1989-90
Timber inspections	\$ 12 000	\$ 14 700
Sale of timber samples	4 400	5 900
Mechanical testing of timber	4 500	5 500
Chemical testing	21 800	21 600
Industry training	4 300	13 000
Pathology/entomology services	4 700	2 800
Timber seasoning	3 400	1 900
Miscellaneous	29 928	7 670
<b>Total Revenue</b>	<b>\$ 85 028</b>	<b>\$ 73 070</b>
<b>Subprogram Expenditure</b>	<b>\$ 819 385</b>	<b>\$1 613 245</b>
Revenue/Expenditure Ratio	0.10	0.05
Extension inquiries	6 050	6 000
Complaints received under the Timber Utilisation Act	28	20
Note: Subprogram expenditure in 1989-90 includes an expenditure of \$422 870 on the eradication of West Indian drywood termites in several locations.		

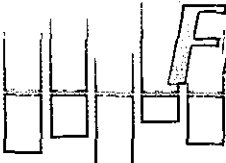
## Achievements

**Improvement of Timber Utilisation:** The Queensland Forest Service provides regulatory control, research and advice to ensure that timber is used efficiently and effectively. Under the Timber Utilisation and Marketing Act, the Service seeks to ensure that timber sold in the State meets established standards for seasoning, preservative treatment and susceptibility to lyctid borers. Under the Diseases in Timber Act, the Service has a responsibility to restrict the spread of insects and diseases that may affect trees and timber.

**Public Advisory Services Popular:** During the reporting year, over 6 000 timber users and specifiers accessed advisory and research services in areas such as wood property determination, timber seasoning, timber preservation and timber performance in service. Advisory services are generally provided free of charge, while the majority of research is conducted either on a fee-for-service basis, or to develop back-up information for advisory services.

**Industrial Advice Provided on Fee Basis:** Fee-for-service work routinely involves activities such as timber performance inspections, the identification of tree and timber pests and diseases, the chemical analysis of preservative-treated timber, mechanical testing of structural durability, and training seminars for timber specifiers and regulatory authorities.

**Laboratory Open Day for Industry:** 'Open Days' are held periodically at the Service's timber research laboratories at Indooroopilly, as a means of introducing timber industry representatives to the scientists and technicians who are responsible for upholding standards and providing advice. During the reporting period, the Minister for Primary Industries, the Hon E.D. Casey MLA, attended an industry open day.



# Financial Information

## Financial Summary

The Consolidated Statement of Trust Fund transactions is shown in Table 1. The Brisbane Forest Park Fund receipts and payments are for the six month period 1.1.90 to 30.6.90.

A total of \$94.776 million was received and \$94.567 million was paid from the two Trust Funds operated by the Queensland Forest Service.

Table 2 shows the various sources of the receipts and Table 3 shows the major activities to which the funds were applied.

Program receipts are shown in Table 4 and Program payments are shown in Table 5.

The net debt as at 30.6.90 was \$416.055 million (refer Table 6). The Treasury Department is responsible for the financing and repayment of State Government loans which have been advanced to the Queensland Forest Service for capital works expenditure.

Surplus moneys available in the Forestry Fund are used to repay interest and redemption due on advances and are applied firstly to instalments due on Commonwealth advances, secondly to Special Projects Fund advances, thirdly to interest charges on Loan Fund indebtedness and lastly to repayment of principal on Loan Fund advances.

Debt service charges on Commonwealth and Special Projects Fund advances have been met in full as they became due. However, debt service charges on Loan Fund advances have not been met in full since 1960-61. Unpaid interest amounting to \$206 132 335 has not been capitalised.

Progress has been made towards putting the Forest Service on an accrual accounting basis. It is anticipated that the necessary methodology will be implemented during the 1990-91 financial year.

## Funds

**Forestry Fund:** In accordance with the requirements of the *Constitution Act of 1867-1988* and the *Financial Administration and Audit Act 1977-1988*, financial transactions of the Queensland Forest Service are recorded in the Forestry Fund. This fund incorporates all functions of the Queensland Forest Service, 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 Service expenditures and receipts. The Fund includes contributions from the Consolidated Revenue Fund, and, in accordance with the principles of program management records all transactions on a program basis (refer Statement of Program Receipts and Payments).

The receipts for this fund were \$93.477 million whilst expenditures totalled \$93.552 million. Details of these items are contained in the Financial Summary for year ended 30.6.90.

**Brisbane Forest Park Fund:** This fund is established under the provisions of the *Brisbane Forest Park Act 1977-1988* to record transactions in connection with the planning, development and maintenance of the Brisbane Forest Park area for outdoor recreation compatible with the preservation of the Park's natural values. The fund is financed by the provision of moneys from the Consolidated Revenue Fund to cover salaries, operating costs and for development works of a capital nature. In addition, special allocations are made available by the Treasurer to supplement development works.

The receipts for this fund for the period 1.1.90 to 30.6.90 were \$1.299 million whilst expenditures totalled \$1.015 million. Details of these items are contained in the Financial Summary for the year ended 30.6.90.

**TABLE 1 - Consolidated Statement of Trust Fund Transactions for 1989-1990.**

Funds	Balance	Balance 1.7.89	Receipts 1.1.90	Payments	Balance 30.6.90
	\$'000	\$'000	\$'000	\$'000	\$'000
Forestry Fund	13 866		93 477	93 552	13 791
Brisbane Forest Park Fund (Note 1)		(60)	1 299	1 015	224
<b>Total</b>			<b>94 776</b>	<b>94 567</b>	

**Note 1:** The funds of the Brisbane Forest Park were transferred from the Department of Environment and Heritage to the Department of Primary Industries by Order in Council dated 7 December 1989. The administration of the Brisbane Forest Park was transferred to the Queensland Forest Service as from 1 January 1990.

**TABLE 2 - Statement of Receipts/Source of Funds for 1989-1990.**

Funds	Taxes, Fees and Fines	Territorial	Receipts for Goods and Services	Miscellaneous Receipts	Capital Recoveries/ Financing Transactions	Contributions from Consolidated Revenue Fund	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Forestry Fund	240	36 893	10 795	403	2 765	42 381	93 477
Brisbane Forest Park Fund			93		34	1 172	1 299
<b>Total</b>	<b>240</b>	<b>36 893</b>	<b>10 888</b>	<b>403</b>	<b>2 799</b>	<b>43 553</b>	<b>94 776</b>

**TABLE 3 - Statement of Payments/Application of Funds for 1989-1990.**

Funds	Labour Related	Plant Hire	Goods and Services	Debt Servicing	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
Forestry Fund	44 339	7 380	26 201	15 632	93 552
Brisbane Forest Park Fund	362		624	29	1 015
<b>Total</b>	<b>44 701</b>	<b>7 380</b>	<b>26 825</b>	<b>15 661</b>	<b>94 567</b>

**TABLE 4 - Program Receipts for 1989-1990.**

<b>Fund</b>	<b>Native Forest Production</b>	<b>Plantation Production</b>	<b>Other Resource Sales</b>	<b>Forest Services</b>	<b>Consultancies</b>	<b>Total</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
Forestry Fund	11 415	62 763	3 829	13 416	2 054	93 477
Brisbane Forest Park Fund				1 299		1 299
<b>Total</b>	<b>11 415</b>	<b>62 763</b>	<b>3 829</b>	<b>14 715</b>	<b>2 054</b>	<b>94 776</b>

**TABLE 5 - Program Payments for 1989-1990.**

<b>Fund</b>	<b>Native Forest Production</b>	<b>Plantation Production</b>	<b>Other Resource Sales</b>	<b>Forest Services</b>	<b>Consultancies</b>	<b>Total</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
Forestry Fund	11 415	66 402	2 321	11 399	2 015	93 552
Brisbane Forest Park Fund				1 015		1 015
<b>Total</b>	<b>11 415</b>	<b>66 402</b>	<b>2 321</b>	<b>12 414</b>	<b>2 015</b>	<b>94 567</b>

**TABLE 6 - Statement of Loan Indebtedness as at 30.6.90.**

<b>Source of Finance and Servicing Fund</b>	<b>1990</b>	<b>1989</b>	<b>1988</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
State Government (Loan Fund) Forestry Fund	362 737	350 611	330 805
State Government (Treasury Special Projects Fund) Forestry Fund	30 406	30 603	30 777
Brisbane Forest Park Fund	186		
Commonwealth Government Softwood Loans Forestry Fund	22 726	21 896	21 221
<b>Total</b>	<b>416 055</b>	<b>403 110</b>	<b>382 803</b>

## Financial Summary for the year ended 30.6.90.

	Forestry Fund		Brisbane Forest Park Fund*
	1988/89	1989/90	1989/90
	\$'000	\$'000	\$'000
Balance 1 July	8 660	13 866	
Balance 1 January			(60)
<b>RECEIPTS -</b>			
Taxes, Fees and Fines	209	240	
Territorial	32 581	36 893	
Receipts for Goods and Services	10 498	10 795	93
Miscellaneous Receipts	1 862	403	
Capital Recoveries/Financing Transactions	15 784	2 765	34
Contributions from Consolidated Revenue Fund	36 524	42 381	1 172
<b>Total Receipts</b>	<b>97 458</b>	<b>93 477</b>	<b>1 299</b>
<b>PAYMENTS -</b>			
Current Outlays -			
Salary, Wages & Related Costs	18 383	42 947	378
Administration Costs	23 385	15 763	529
Interest Paid	19 987	14 886	15
Current Grants & Subsidies	..	777	
Maintenance of Buildings, Plant and Equipment	..	760	78
Total Current Outlays	61 755	75 133	1 000
Capital Outlays -			
Fixed Capital Expenditure	25 387	9 728	1
Plant & Equipment	4 387	7 945	
Total Capital Outlays	29 774	17 673	1
Capital Recoveries/Financing Transactions -			
Repayment of Loans & Advances to the Treasury Department	723	746	14
Total Capital Recoveries/Financing Transactions	723	746	14
<b>Total Payments</b>	<b>92 252</b>	<b>93 552</b>	<b>1 015</b>
Balance 30 June 1990	13 866	13 791	224

\* There are no comparative figures, as Brisbane Forest Park was administered by the Department of Environment and Heritage until 31.12.89.



## Statement of Program Receipts and Payments for the year ended 30.6.90.

### 1. Forestry Fund

Receipts 1988-89 \$'000	Expenditure 1988-89 \$'000		Receipts 1989-90 \$'000	Expenditure 1989-90 \$'000
8 660		<b>BALANCE 1 July</b>	13 866	
		<b>FINANCING TRANSACTIONS</b>		
29 091		Consolidated Revenue Fund	29 252	
50		NQ Log Subsidy	..	
19 806		Capital		
		Repayable	12 126	
878		Non Repayable		
		Recreation	900	
		Natural Disaster Relief	103	
		<b>PROGRAMS</b>		
		<b>NATIVE FOREST PRODUCTION</b>		
1 919	4 116	Cypress	2 046	3 935
3 963	5 717	Hardwood	5 276	6 291
615	1 530	Rainforest	749	1 189
		<b>PLANTATION PRODUCTION</b>		
11 798	41 081	Exotics	13 976	37 807
10 927	17 638	Native	11 260	16 644
10 585	9 163	Asset Management	9 666	11 951
		<b>OTHER RESOURCE SALES</b>		
1 059	398	Cypress	689	478
1 512	1 312	Hardwood	1 453	1 168
454	197	Sandalwood	..	222
1 127	363	Quarry Material Sales	1 687	453
2 162	1 886			
		<b>CONSULTANCIES</b>	2 054	2 015
		<b>FOREST SERVICES</b>		
85	2 862	Recreation	293	3 499
708	3 611	Forest Extension	1 124	4 279
83	820	Timber Utilisation Extension	73	1 613
61	43	Forest Entitlement Areas	..	..
574	574	Timber Research and Development Advisory Council	750	750
..	940	Wet Tropics Non-Timber Management	..	1 258
<b>106 117</b>	<b>92 251</b>	<b>TOTAL</b>	<b>107 343</b>	<b>93 552</b>
	13 866	<b>BALANCE 30 JUNE</b>		13 791

**2. Brisbane Forest Park Fund** (Fund transferred to the Queensland Forest Service on 1.1.90.)

<b>*Receipts 1988-89 \$'000</b>	<b>Expenditure 1988-89 \$'000</b>

**BALANCE** 1 January 1990

**FINANCING TRANSACTIONS**  
Consolidated Revenue Fund

**PROGRAM**  
**FOREST SERVICES**  
Recreation

**TOTAL**

**BALANCE** 30 June 1990

<b>Receipts 1989-90 \$'000</b>	<b>Expenditure 1989-90 \$'000</b>
(60)	
1 172	
127	1 015
<b>1 239</b>	<b>1 015</b>
	224

\* There are no comparative figures, as Brisbane Forest Park was administered by the Department of Environment and Heritage until 31.12.89.

Notes on the Financial Statements

1. Basis of Accounts - Receipts and payments are brought to account on a cash basis.
2. These statements are prepared in accordance with Government accounting principles and practices.



# Appendices

## APPENDIX 1: Reservation figures for the year ended 30 June 1990

State Forests	No. of Reservations	Area (ha)
Figures as at 1 July 1989	483	+3 983 898.9297
Crown Land declared State Forest	+ 4	+ 2 799.1430
Crown Land declared and added to existing State Forest		+ 10 715.8875
Timber Reserves declared State Forest	+ 1	+ 4 260.0000
Timber Reserves declared State Forest and amalgamated with existing State Forests		+ 2 806.7000
State Forests partially revoked		- 26 093.0270
Areas excluded for road and railway purposes		- 153.9185
Recomputation of Boundary		+ 87.8415
<b>Total as at 30 June 1990</b>	<b>488</b>	<b>+3 978 321.5562</b>

Timber Reserves	No. of Reservations	Area (ha)
Figures as at 1 July 1989	96	+ 529 468.5969
Declared and added to existing Timber Reserves		+ 160.8450
Timber Reserves Revoked	- 5	- 9 389.0200
Timber Reserves partially Revoked		- 9.7930
Areas excluded for Road and Railways		- 2.7000
Recomputation of Boundary		+ 38.6480
<b>Total as at 30 June 1990</b>	<b>91</b>	<b>+ 520 266.5769</b>

## APPENDIX 2: State Forests and Timber Reserves listed by Districts as at 30 June 1990

Forestry District	No. of State Forests	State Forest Areas (hectares)	No. of Timber Reserves	Timber Reserve Areas (hectares)
Atherton	32	380 870.9420	22	306 966.2000
Beerburrum	21	55 907.2788	1	5.6180
Brisbane	43	89 255.9440	4	4 118.3211
Dalby	53	781 859.9540	3	5 918.2033
Gympie	21	82 980.6640	-	-
Imbil	15	62 623.1500	1	0.2094
Ingham	18	288 839.1890	2	798.4000
Maryborough	45	367 454.0207	10	7 806.7899
Monto	57	385 349.4660	18	26 022.9409
Murgon	24	140 695.7110	5	2 401.4983
Rockhampton	82	779 962.0677	21	146 562.8990
Roma	50	478 588.4650	1	19 652.9600
Yarraman	27	83 934.7040	3	12.5370
<b>State Total</b>	<b>488</b>	<b>3 978 321.5562</b>	<b>91</b>	<b>520 266.5769</b>

**APPENDIX 3: Net area of Softwood Plantation established 1 April 1989 to 31 March 1990 (hectares)**

District	Hoop Pine			Caribbean Pine		Other Exotic Conifers			Total 1989-90	Total 1988-89
	New Areas	Other Areas	Total Native Conifers	New Areas	Other Areas	New Areas	Other Areas	Total Exotic Conifers		
Atherton	-	10	10	97	38	-	-	135	<b>145</b>	137
Beerburrum	-	-	-	30	97	21	238	386	<b>386</b>	420
Brisbane	-	-	-	-	-	-	55	55	<b>55</b>	22
Gympie	-	-	-	1 222	62	386	5	1 675	<b>1 675</b>	1 781
Imbil	-	109	109	-	-	-	-	-	<b>109</b>	162
Ingham	-	-	-	333	-	-	-	333	<b>333</b>	791
Maryborough	-	-	-	930	17	594	8	1 549	<b>1 549</b>	2 254
Monto	14	-	14	-	-	-	-	-	<b>14</b>	36
Murgon	168	-	168	-	-	-	-	-	<b>168</b>	106
Rockhampton	-	-	-	101	14	-	4	119	<b>119</b>	123
Yarraman	65	228	293	-	-	-	-	-	<b>293</b>	293
<b>Total 1989-90</b>	<b>247</b>	<b>347</b>	<b>594</b>	<b>2 713</b>	<b>228</b>	<b>1 001</b>	<b>310</b>	<b>4 252</b>	<b>4 846</b>	
Total 1988-89	316	281	597	4 345	232	847	104	5 528		6 125

**APPENDIX 4: Net Area of Softwood Plantation as at 31 March 1990 (hectares)**

District	Native Conifers			Exotic Conifers				Total 1989-90	Total 1988-89
	Hoop Pine	Other Native Conifers	Total Native Conifers	Slash Pine	Caribbean Pine	Other Exotic Conifers	Total Exotic Conifers		
Atherton	1 016	108	1 124	3	1 949	94	2 046	<b>3 170</b>	3 079
Beerburrum	11	2	13	12 542	2 921	2 226	17 689	<b>17 702</b>	18 138
Brisbane	1 606	8	1 614	268	4	2 109	2 381	<b>3 995</b>	3 297
Gympie	321	25	346	24 317	10 253	2 191	36 761	<b>37 107</b>	35 720
Imbil	12 005	228	12 233	23	92	275	390	<b>12 623</b>	12 602
Ingham	4	1	5	2	8 090	409	8 501	<b>8 506</b>	8 221
Maryborough	1 465	32	1 497	26 199	19 396	3 241	48 836	<b>50 333</b>	49 030
Monto	3 234	2	3 236	14	1	11	26	<b>3 262</b>	3 248
Murgon	9 196	133	9 329	-	-	22	22	<b>9 351</b>	9 224
Rockhampton	261	1	262	832	5 566	523	6 921	<b>7 183</b>	7 060
Yarraman	15 454	118	15 572	502	288	1 629	2 419	<b>17 991</b>	17 913
<b>Total 1989-90</b>	<b>44 573</b>	<b>658</b>	<b>45 231</b>	<b>64 702</b>	<b>48 560</b>	<b>12 730</b>	<b>125 992</b>	<b>171 223</b>	
Total 1988-89	44 271	661	44 932	65 348	47 952	9 300	122 600		167 532

**APPENDIX 5: Net Area of Broadleaf Plantation as at 31 March 1990 (hectares)**

District	Hardwood Species*	Miscellaneous Species**	Total 1989-90	Total 1988-89
Atherton	179	8	<b>187</b>	187
Beerburrum	240	39	<b>279</b>	282
Brisbane	106	2	<b>108</b>	107
Gympie	762	36	<b>798</b>	783
Imbil	80	6	<b>86</b>	93
Ingham	3	24	<b>27</b>	27
Maryborough	50	63	<b>113</b>	110
Murgon	27	-	<b>27</b>	27
Rockhampton	2	6	<b>8</b>	8
Yarraman	112	31	<b>143</b>	148
<b>Total 1989-90</b>	<b>1 561</b>	<b>215</b>	<b>1 776</b>	
Total 1988-89	1 571	201		1 772

\* Mostly eucalypt and native rainforest species.

\*\* Mostly small trial research plantings.

**APPENDIX 6: Areas of Native Forest Treated 1989-90 (hectares)**

District	Eucalypt Forest	Cypress Pine Forest	Total 1989-90	Total 1988-89
Beerburrum	57	-	<b>57</b>	119
Dalby	-	2 028	<b>2 028</b>	2 045
Imbil	42	-	<b>42</b>	-
Maryborough	90	-	<b>90</b>	-
Monto	-	-	-	129
Murgon	50	-	<b>50</b>	183
Roma	-	600	<b>600</b>	953
Yarraman	-	-	-	216
<b>Total 1989-90</b>	<b>239</b>	<b>2 628</b>	<b>2 867</b>	
Total 1988-89	651	2 994		3 645

## APPENDIX 7: Operational Statistics 1989-90

Operation	Total 1989-90	Total 1988-89
Softwood Plantation Establishment (hectares)	<b>4 846</b>	6 125
Nursery Stock, Forest Service Use		
Hoop Pine -		
Container	<b>422 500</b>	510 360
Caribbean Pine -		
Container	<b>265 650</b>	934 492
Open Root	<b>3 334 935</b>	4 003 936
Slash Pine -		
Container	<b>3 100</b>	-
Open Root	-	-
Caribbean/Slash Pine Hybrid -		
Container	<b>265 850</b>	28 100
Open Root	<b>1 367 150</b>	860 687
Radiata Pine -		
Container	<b>13 700</b>	16 200
Open Root	<b>46 130</b>	640
Loblolly Pine -		
Container	-	-
Open Root	-	12 668
Eucalypts -		
Container	-	124 550
Enrichment	<b>79 700</b>	-
Hardwood Trials	<b>29 700</b>	-
Nursery Stock, Public Use		
Forest Plots etc.	<b>241 309</b>	224 481
Other Amenity Sales	<b>414 570</b>	253 879
Total value of seedlings sold - \$	<b>378 097</b>	394 140
Seed Sales - \$	<b>253 152</b>	128 955
Weed Control -		
Native Pine Plantation (hectares)	<b>3 123</b>	5 665
Exotic Pine Plantation (hectares)	<b>6 680</b>	14 039
Fertilizing -		
Establishment (hectares)	<b>2 728</b>	2 015
Maintenance (hectares)	<b>9 080</b>	5 140
Pruning -		
First (hectares)	<b>2 126</b>	3 048
Final (hectares)	<b>2 307</b>	2 757
Wildfires -		
Native Forests (hectares burnt)	<b>73 818</b>	33 177
Plantations (hectares burnt)	<b>112</b>	84
Operating Plant as at 30 June -		
Motor Vehicles and Trucks	<b>444</b>	454
Graders	<b>14</b>	15
Rubber-tyred Tractors and Loaders	<b>57</b>	56
Crawler Dozers	<b>15</b>	17

## APPENDIX 8: Milling Timber Processed From Crown Lands 1989-90 (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	3 300	603	222	4 125
Beerburrum	20 082	-	-	20 082
Brisbane	7 568	-	-	7 568
Dalby	13 673	-	-	13 673
Gympie	15 921	-	-	15 921
Imbil	10 955	-	-	10 955
Ingham	241	-	-	241
Maryborough	43 687	-	-	43 687
Monto	32 928	-	-	32 928
Murgon	30 996	-	-	30 996
Rockhampton	32 245	3 165	1 305	36 715
Roma	5 513	-	-	5 513
Yarraman	5 011	-	-	5 011
<b>Total 1989-90</b>	<b>222 120</b>	<b>3 768</b>	<b>1 527</b>	<b>227 415</b>
Total 1988-89	252 479	3 676	5 057	261 212

### NATIVE FOREST CONIFERS

District	Cypress Pine	Other Conifers	Total Conifers
Brisbane	110	5	115
Dalby	54 530	-	54 530
Gympie	-	22	22
Imbil	-	336	336
Maryborough	164	4 289	4 453
Monto	-	154	154
Murgon	-	287	287
Rockhampton	2 879	138	3 017
Roma	62 694	-	62 694
Yarraman	-	704	704
<b>Total 1989-90</b>	<b>120 377</b>	<b>5 935</b>	<b>126 312</b>
Total 1988-89	143 487	11 244	154 731

PLANTATION

District	Native Conifers	Exotic Conifers	Non-Conifers	Total Plantation
Atherton	4 654	408	-	5 062
Beerburrum	2 733	130 269	-	133 002
Brisbane	644	24 277	-	24 921
Gympie	2 061	54 614	4 273	60 948
Imbil	94 395	2 143	-	96 538
Ingham	-	1 395	-	1 395
Maryborough	1 148	87 754	-	88 902
Monto	15 016	-	-	15 016
Murgon	18 174	289	165	18 628
Rockhampton	411	20 551	195	21 157
Yarraman	108 549	4 915	-	113 464
<b>Total 1989-90</b>	<b>247 785</b>	<b>326 615</b>	<b>4 633</b>	<b>579 033</b>
Total 1988-89	211 409	340 867	3 284	555 560

ALL MILLING TIMBER

District	Total 1989-90	Total 1988-89
Atherton	9 187	21 189
Beerburrum	153 084	158 894
Brisbane	32 604	46 840
Dalby	68 203	72 977
Gympie	76 891	87 580
Imbil	107 829	87 794
Ingham	1 636	4 341
Maryborough	137 042	132 565
Monto	48 098	53 257
Murgon	49 911	28 662
Rockhampton	60 889	74 466
Roma	68 207	67 404
Yarraman	119 179	135 534
<b>Total</b>	<b>932 760</b>	<b>971 503</b>



## APPENDIX 9: Pulpwood Removals from Crown Lands 1989-90 (gross measure m<sup>3</sup>)

District	Plantation		Native Forests	Total 1989-90	Total 1988-89
	Native Conifers	Exotic Conifers	Non- Conifers		
Beerburrum	-	17 926	-	<b>17 926</b>	11 980
Brisbane	-	-	1 750	<b>1 750</b>	-
Gympie	-	30 230	414	<b>30 644</b>	70 129
Imbil	-	-	-	-	4
Maryborough	-	68 259	-	<b>68 259</b>	7 466
Rockhampton	-	1	-	<b>1</b>	-
Yarraman	-	234	8 978	<b>9 212</b>	10 964
<b>Total 1989-90</b>	<b>0</b>	<b>116 650</b>	<b>11 142</b>	<b>127 792</b>	
Total 1988-89	1 198	90 569	8 776		100 543

## APPENDIX 10: Miscellaneous Removals from Crown Lands 1989-90

Product Group	Volume*	Unit	Value
Railway and Tramway sleepers and like timber	13 403	cubic metres	336 709
Landscaping and Fencing Timbers	441 226	pieces	173 560
Mining Timbers	2 109	cubic metres	32 765
Girders, corbels, piles and sills	31 277	lineal metres	305 961
Plantation Roundwood	62 187	cubic metres	519 331
Plantation Poles	4 768	cubic metres	52 806
Hardwood Poles	677 187	lineal metres	1 206 578
Quarry Material	2 159 163	cubic metres	1 788 568
Minor Forest Products	n/a	-	263 201

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

## APPENDIX 11: Milling Timber Processed From Private Lands 1989-90 (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	3 659	12 514	10 198	26 371
Beerburrum	16 790	20	49	16 859
Brisbane	37 386	158	7	37 551
Dalby	14 430	-	-	14 430
Gympie	13 986	15	7	14 008
Imbil	5 560	-	-	5 560
Ingham	6 896	1 478	3 524	11 898
Maryborough	55 939	13	11	55 963
Monto	29 853	14	2	29 869
Murgon	14 115	-	160	14 275
Rockhampton	33 216	1 641	677	35 534
Roma	337	-	-	337
Yarraman	16 683	70	26	16 779
<b>Total 1989-90</b>	<b>248 850</b>	<b>15 923</b>	<b>14 661</b>	<b>279 434</b>
Total 1988-89*	218 183	21 471	15 038	254 692

### NATIVE FOREST CONIFERS

District	Cypress Pine	Other Conifers	Total Conifers
Atherton	16	16	32
Beerburrum	-	29	29
Brisbane	995	400	1 395
Dalby	35 187	790	35 977
Gympie	-	497	497
Ingham	-	4	4
Maryborough	-	51	51
Rockhampton	-	103	103
Roma	16 165	-	16 165
Yarraman	91	331	422
<b>Total 1989-90</b>	<b>52 454</b>	<b>2 221</b>	<b>54 675</b>
Total 1988-89*	51 461	2 639	54 100

PLANTATION

District	Native Conifers	Exotic Conifers	Imported	Total Plantation and Imported
Atherton	-	4	-	4
Beerburrum	5	26 057	-	26 062
Brisbane	415	31 447	10 687	42 549
Ingham	-	39	-	39
Maryborough	47	8	-	55
Murgon	-	875	-	875
Rockhampton	100	655	-	755
Yarraman	32	10	-	42
<b>Total 1989-90</b>	<b>599</b>	<b>59 095</b>	<b>10 687</b>	<b>70 381</b>
Total 1988-89*	3 089	47 422	12 441	62 952

ALL MILLING TIMBER

District	Total 1989-90	Total 1988-89*
Atherton	<b>26 407</b>	33 480
Beerburrum	<b>42 950</b>	23 474
Brisbane	<b>81 495</b>	77 904
Dalby	<b>50 407</b>	47 397
Gympie	<b>14 505</b>	10 080
Imbil	<b>5 560</b>	6 777
Ingham	<b>11 941</b>	12 878
Maryborough	<b>56 069</b>	54 478
Monto	<b>29 869</b>	22 136
Murgon	<b>15 150</b>	15 608
Rockhampton	<b>36 392</b>	34 381
Roma	<b>16 502</b>	17 249
Yarraman	<b>17 243</b>	15 902
<b>Total</b>	<b>404 490</b>	<b>371 744</b>

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

\* Corrected figures

## APPENDIX 12: Pulpwood Processed from Private Lands 1989-90 (gross measure m<sup>3</sup>)

District	Forest Hardwoods	Plantation Exotic Conifers	Total 1989-90	Total 1988-89*
Brisbane	37 165	29 447	<b>66 612</b>	71 981
<b>Total 1989-90</b>	<b>37 165</b>	<b>29 447</b>	<b>66 612</b>	
Total 1988-89*	37 611	34 370		71 981

\* Corrected figures

## APPENDIX 13: Staff Distribution as at 30 June 1990

	Head Office	Research	District	Total 1989-90	Total 1988-89
Salaried Officers -					
Graduate	76	42	32	<b>150</b>	147
Technical	52	39	11	<b>102</b>	99
Field Supervisory	5	3	83	<b>91</b>	98
Administrative/Clerical	116	14	85	<b>215</b>	216
Sub-Total	249	98	211	<b>558</b>	560
Wages Employees -					
Native Forest Production	3	-	104	<b>107</b>	134
Plantation Production	21	21	613	<b>655</b>	674
Other Resource Sales	1	-	6	<b>7</b>	4
Forest Services	26	18	102	<b>146</b>	74
Consultancies	-	4	-	<b>4</b>	14
Sub-Total	51	43	825	<b>919</b>	900
<b>Total 30-6-90</b>	<b>300</b>	<b>141</b>	<b>1 036</b>	<b>1 477 *</b>	
Total 30-6-89	278	91	1 091		1 460

\* Figure includes Brisbane Forest Park staff transferred to Forest Service on 1 January 1990.

## APPENDIX 14: Publications

### PUBLICATIONS - MAPS

Scale	Reference	Map Name	Edition	District
1:15 000		Nerang State Forest	2	Brisbane
1:25 000	7962-11	Ravenshoe	2	Atherton
	7962-12	Millstream	2	Atherton
	7962-13	Woodleigh	2	Atherton
	7962-14	Deadman's Creek	2	Atherton
	8060-11	Mount Farquharson	2	Ingham
	8060-12	The Escarpment	2	Ingham
	8060-13	Kangaroo Creek	2	Ingham
	8060-14	Wallaman Falls	2	Ingham
1:50 000	9447-3	Howard	6	Maryborough
1:500 000		South East Queensland	3	
1:2 000 000		Queensland	2	

### PUBLICATIONS - GENERAL

#### Booklets

Caring for our Countryside

#### Information Sheets

No. 29 The Greenhouse Effect  
 No. 30 Sustainability

#### Forest Facts

No. 8 The Greenhouse Effect  
 No. 9 Sustainability

#### Posters

*Personal Protective Equipment Guide for Supervisors & Employees*

#### Periodicals

Between the Leaves  
 Flashes  
 Danbulla Forest News  
 Dec - Feb  
 Mar - May  
 June - Aug  
 Sept - Nov

#### Timber Notes

No. 27 Ordering Timber (1989). 4pp.  
 No. 34 Structural Timbers for Pole Frame Houses (revised 1989). 4pp.  
 No. 35 "Diehm, W. I. "  
 Building Stains Associated with Timber Use (1989). 2pp.  
 No. 37 "Diehm, W. I."  
 Timbers Suitable for Bending (1989) 4pp.

#### Miscellaneous

Bookmarks

## PUBLICATIONS - RESEARCH

### Research Notes

- No. 42 "Costantini, A., Podberscek, M. and Baxter, A.G.M. (1989). "Directed glyphosate applications in *Pinus caribaea* var. *hondurensis* nursery weed management. 7 pp.

### Research Reports

- No. 6 Queensland Department of Forestry (1990). Research Report 1986 and 1987. 135 pp.

### Technical Notes

- No. 13 "Crevatin, M.A. (1989). Grinder mesh size and exhaust systems" and their effect on CCA analytical results. 5 pp.

### Technical Pamphlets

- No. 2 "Cause, M.L., Rudder, E.J. and Kynaston, W.T. Queensland" "Timbers - Their Nomenclature, Density and Lyctid Susceptibility" (1989). 126 pp.

## APPENDIX 15: Forest Service Principal Offices

### Head Office

Forestry House  
160 Mary Street  
BRISBANE Q 4000  
Telephone: (07) 234 0111  
Facsimile: (07) 221 4713  
Telex: QUEFOR: AA43988

GPO Box 944  
BRISBANE Q 4001

### Division of Technical Services

(Forest Research/Timber Research and Extension)  
80 Meiers Road  
INDOOROOPIILLY Q 4068  
Telephone: (07) 877 9700  
Facsimile: (07) 371 2217

PO Box 631  
INDOOROOPIILLY Q 4068

Districts	District Foresters	PO Box Number	Telephone	Facsimile
S.E. Region				
Beerburum	M. ANDERSON	PO Beerburum	(074) 96 0166	(074) 96 0173
Brisbane	A. HARVEY	GPO Box 1473	(07) 234 0193	(07) 234 0304
Gympie	VACANT	M/S 483	(074) 82 2244	(074) 82 3430
Imbil	G. HILEY	PO Box 37	(074) 84 5133	(074) 84 5220
Maryborough	VACANT	PO Box 219	(071) 23 7833	(071) 22 4498
Murgon	VACANT	PO Box 42	(071) 68 1422	(071) 68 2982
N.W. Region				
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 1405	(071) 66 1871
Rockhampton	P. TWEEDY	PO Box 344	(079) 31 9700	(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