
Local Impacts of Forest Industry Expenditure in the Eden CRA region

A report undertaken for the NSW CRA/RFA Steering Committee
December 1997

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**PREPARED BY
RUSH SOCIAL RESEARCH**

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Committee
project number NE 30/ES
December 1997**

Report Status

This report has been prepared as a working paper for the NSW CRA/RFA Steering Committee under the direction of the Economic and Social Technical Committee. It is recognised that it may contain errors that require correction but it is released to be consistent with the principle that information related to the comprehensive regional assessment process in New South Wales will be made publicly available.

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This project has been jointly funded by the New South Wales and Commonwealth Governments. The work undertaken within this project has been managed by the joint NSW / Commonwealth CRA/RFA Steering Committee which includes representatives from the NSW and Commonwealth Governments and stakeholder groups.

The project has been overseen and the methodology has been developed through the Economic and Social Technical Committee which includes representatives from the NSW and Commonwealth Governments and stakeholder groups.

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Local Impacts of Forest Industry Expenditure in the Eden CRA

A research report

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Prepared for
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and
Resource and Conservation Assessment Council
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Executive Summary

A study has been completed of local impacts of expenditures in the Eden CRA of two groups of businesses: (i) those in the native hardwood timber industry; and (ii) those providing services to the native hardwood timber industry.

The study approach was designed specifically to identify the extent of local expenditures by each group, by discriminating between expenditures on business services, wages and salaries, council rates, and current purchases from suppliers (both within and beyond the Eden region).

1. Businesses in the Timber Industry

- o A survey was carried out of all businesses involved in the native hardwood timber industry in the Eden CRA. As at June 1997 there is a three-tiered structure to the timber industry, comprising:
 - . two mills, one wood chip mill (Harris Daishowa (Aust) P/L and one sawmill Tablelands Sawmills (Bombala) P/L, together with NSW State Forests, supporting 163 full-time and three part-time and casual employees;
 - . twelve timber harvesting companies supporting sixteen bush crews and 127 full time and eight part-time and casual employees;
 - . ten haulage contractors with 16 full time and six part-time and casual employees.
- o The industry in the region is dominated by HDA, which is responsible for over 50 percent of employment and over 75 percent of final sales.
- o The structure of the industry is highly monopsonistic, with businesses at each tier providing services to a very small number of clients (customers): 83 percent of businesses in the industry having five or less clients.
- o The size of the timber industry - measured in terms of sales or employment - has decreased slightly over the last eighteen months. Much more significant decreases in size occurred prior to June 1996.
- o The average annual wage levels amongst timber mill and State Forest staff, harvesting contractors and haulage contractors has been estimated to be \$35,000, \$45,000 and \$32,000 respectively.
- o Expenditure locally by the timber industry, including wages and salaries, local authority rates and local current purchases, is estimated at \$23.04m annually.
- o The town and community locations of employees in the timber industry have been determined, and an index of the relative economic exposure of communities to changes in the timber industry developed. On this measure,

Eden and Bombala are most significantly exposed, although higher than average exposure also occurs for Pambula.

- o The key concern amongst businesses in the industry is for resource security and reliable long-term policy.
- o Levels of optimism for the future are on average relatively high amongst the mills and State Forests, somewhat less amongst harvesting contractors, and less again amongst haulage contractors.

2. Timber Industry Supplying Businesses

- o A questionnaire survey was carried out of over 230 businesses in the Eden region providing services to timber industry businesses. Responses were received from 48 businesses.
- o The responding businesses were from a wide range of towns within the region and of economic sectors (as determined by ANZSIC codes).
- o Supply businesses generally have a much broader client base than timber industry businesses, the exception being specialised, relatively technically advanced businesses such as are machine engineering and repair, which are heavily dependent on the timber industry.
- o Businesses range in size up to several with an annual sales of greater than \$5m, with a median size on the basis of sales of between \$0.5m and \$1m, and a median staff size of 5-6 full-time staff equivalents.
- o There is no evidence from the survey that smaller businesses relative to larger, spend a greater proportion of their current purchases within the Eden region.
- o In comparison with staff in businesses in the timber industry, supply business staff have higher domiciliary representation in Bega, Merimbula and Pambula, and less in Eden and Bombala.
- o The major issues affecting individual businesses in the region is their concern for resource security for the timber industry and the need for new economic initiatives such as the proposed recovery mill and Eden wharf. The need to diversity business, source work from elsewhere, and remain competitive is also a significant concern for many respondent businesses.
- o Levels of optimism amongst these businesses is higher on average than for businesses in the timber industry.

Part I. Background to the Project

1. Background

As part of the social assessment of forest regions in New South Wales, the Social Assessment Unit, Forest Assessment Branch, of the Commonwealth Department of Primary Industries and Energy (DPIE), together with the NSW Resource and Conservation Assessment Council (RACAC) and the NSW CRA/RFA Social and Economic Technical Committee, established a consultancy for a study on the local impacts of native hardwood forest industry expenditures in the Eden CRA region^{1,2}.

It was proposed that the study would address the sensitivity of businesses in the region to the following themes:

- o size and employment levels of businesses
- o expenditure of businesses by type and location
- o dependence of businesses on forest based industries
- o locality of major suppliers to these businesses.

The context for this study is the influence of changes in the native hardwood timber industry on individual communities in the region. In a parallel program, a number of 'case study' communities have been set up in the region, and community workshops have been held in them. These communities comprise: Bombala, Eden, Merimbula, Bega, Wyndham, Wonboyn Lake, Cobargo and Pambula.

Concurrent with the establishment of the present consultancy, a quantitative survey of all main street businesses in some towns in the Eden CRA region was being conducted by the Forest Protection Society (FPS).³ It was therefore decided to adopt for the present work a more innovative approach which would be able to employ the results of the FPS survey, and bring additional significant information to bear on the process of change in the Eden region.

The present work also needed to take into account other work in progress as elements of the overall comprehensive regional assessment of the Eden region. These include:

- (i) Eden Region Economic Impact Study being carried out by Centre for Agricultural and Regional Economics; and
- (ii) Modeling and Social Impact Assessment Project being conducted by Environmetrics P/L of Sydney.

¹ SAU/RACAC, *Consultancy Brief: Consultancy to conduct a study on the local impacts of forest industry expenditure in the Eden CRA region as a part of the Social Assessment for New South Wales* (July 1997).

² In this report, the term 'timber industry' should be taken to refer to the 'native hardwoods timber industry'.

³ Forest Protection Society, c/o 32 Maybe St., Bombala 2632.

2. The Policy Context: Change in the Eden CRA 1987-1997

For more than a decade the timber industry in the Eden CRA has been subject policy and regulatory changes that have influenced the industry's access to timber resource.

In 1985 NSW Forestry Commission announced the need for a 30 percent reduction in hardwood sawlog volumes accessible to the forest industry, in order to adjust annual harvesting to levels considered to be sustainable in the long term. The reduction was to be phased in over three years at 10 percent reduction per year (1986-89). The quota set by State Forests for pulpwood access, in place since the mid-1980's of 530,000 tonnes, was not reduced however.

In February 1990 the Commonwealth and State governments negotiated a new agreement to guarantee the availability of wood resource to meet the Forestry Commission of New South Wales' wood supply obligations, to remain in place until the review of the biological resources of the region then being undertaken by a Joint Scientific Committee, had been completed.

The Joint Scientific Committee released its report in July 1990. It recommended the expansion of the conservation reserve system that would provide: "adequate representation of all existing environments and their associated plant and animal species". It recommended the continuation of timber harvesting outside ecological reserves under certain conditions.⁴ These recommendations were accepted by government and industry.

In October 1990 the Commonwealth-State Agreement on the South East Forests (commonly referred to as the 'Hawke/Greiner Agreement') was announced. This intimated that six new national parks were to be created in the region, together with two nature reserves, involving the transfer of about 45,000ha from State forests to conservation reserves. (The Hawke-Greiner Agreement also foreshadowed the creation of further reserves in the area, totaling 59,000 hectares.)

In order to achieve sustainable yield from the reduced area of harvestable forest, the annual sawlog quota was set at 59,000 cubic metres, commencing 1992. This represented a reduction of about 10 percent on the annual quota in place since 1990. The pulpwood quota was reduced to 504,000 cubic metres, a five percent annual reduction. No further quota reductions were envisaged.

Because of moratoriums placed on logging environmentally sensitive areas in areas available for harvest, for example water catchment areas and native animal habitat, it was considered by the industry that available resource would permit a harvestable quota of about 48-50,000 cubic metres of sawlogs.

⁴ *Biological Conservation of the South-East Forests: Report of the Joint Scientific Committee* (DPIE & AGPS, Canberra, July 1990).

In 1992 the National Forest Policy Statement (NFPS), agreed between the Commonwealth and State and Territory governments, set out broad environmental and economic goals for the management of Australia's forests.⁵

The objectives of the NFPS are to establish a national forest reserve system which is comprehensive, adequate and representative (CAR), and to provide a sustainable forest industry into the future. To accomplish this objective, the Commonwealth and state governments together agreed to carry out Comprehensive Regional Assessments (CRAs) of the values of Australia's forest regions. These would be incorporated in formal agreements - Regional Forest Agreements (RFAs) - between the Commonwealth and State Governments, and which would provide the foundation for long-term decision-making in relation to individual forest regions.

In December 1993 the State/Commonwealth Agreement on the South East Forest Region of NSW was signed. The aim of the Agreement (based on the Hawke-Greiner Agreement of 1990), was to provide certainty with respect to both nature conservation and access to forest resources to maintain and enhance regional development opportunities. The Agreement ratified proposed national parks in the region, including Biamanga, Bemboka, Tantawangalo, Coolangubra, Genoa and Yowaka, and nature reserves of Bondi Gulf and Coolumbooka.

In December 1994 the then Prime Minister Paul Keating, issued a government decision introducing a declining permissible annual volume of export woodchips from areas not covered by RFAs, to commence in 1996 and to be reduced to zero by the year 2000.⁶ The specific consequences of this decision for Harris-Daishowa (Aust) P/L based at Eden were spelled out in a media release in December 1995 by the Minister for Resources, and represented a reduction in permitted export volume from 950,000 tonnes to 795,000 tonnes for 1996.⁷ One third of that resource was to be sourced from East Gippsland and the remainder from the Eden region. The permissible export volume was restored to 930,000 tonnes for 1997, but customers for the shortfall of the previous year had moved elsewhere, and the international market for woodchips is currently depressed, so that the increased volume has not so far been taken up.⁸

Meanwhile, in June 1995, the NSW Government announced a series of forestry reforms after extensive consultation with industry, union and conservation groups. The broad thrust of the reforms was towards implementation of the NFPS within NSW.

One significant task for the CRA process in NSW and elsewhere has been the definition of areas available for logging. In NSW the initial step was taken in the joint Commonwealth-NSW report *Deferred Forest Areas* (December, 1995). (A deferred forest area is defined as an area identified on a regional basis, in current wood

⁵ Commonwealth of Australia, *National Forest Policy Statement: A New Focus for Australia's Forests* (AGPS, Canberra, 1992).

⁶ Prime Minister, *Statement on Woodchip Exports*, 22.12.1994.

⁷ Commonwealth Minister for Resources, *Export Licences seek to encourage Value Adding*, (incl. attachments), 1.12.1995.

⁸ The volume of export to be permitted does not address the question of resource availability in any way.

production tenures that may need to be set aside from logging so as not to foreclose options for their possible inclusion in a (CAR) reserve system⁹).

For the Eden region, the June 1995 reforms included specifically a 40 percent reduction in sawlog supply from July 1996 (from 48-50,000 cubic metres to 26,000). During an interim assessment process in 1996, 90,000ha were deferred from logging pending the outcome of the Comprehensive Regional Assessment for the region. In addition, areas totaling 90,000ha were identified to provide a national park in the region. In January 1997 the South East Forests National Park was officially declared open¹⁰. The park includes 30,000 ha of previously protected area, together with 60,000 ha of forests previously available for logging.

The long-term framework for forestry policy set in the NFPS and the processes of CRAs and RFAs continues through the Interim Assessment Process (IAP). The current position of the IAP is described in the RACAC report of June 1996 entitled *Draft Interim Forestry Assessment Report*.

⁹ RACAC, *Draft Interim Forestry Assessment Report*, RACAC, Sydney, 1996, p4.

¹⁰ Premier of New South Wales, *Press Release: Premier declares historic South East Forests National Park Open*, 29 January 1997.

Part II. Method

3. The Approach Adopted

3.1 Introduction

Rush Social Research proposed to adopt a social science based and essentially qualitative methodological approach, employing a ‘cascade’ principle. Specifically this involved:

- (1) An initial approach to managers of operating mills in the region (and to identifiable managers of now-closed mills), and the development of a list of suppliers of product and services to these mills, with a set of details about each e.g. scale, significance etc.
- (2) An approach to each supplier to determine, *inter alia*:
 - (a) changes in their business in recent times due to changes in the demand for their services from mills, in terms of the significant themes for the study (see section 1 above) and other relevant issues;
 - (b) identify future prospects and sensitivities, including any thresholds and indivisibilities;
 - (c) establish the domiciliary locations of members of staff;
 - (c) identify for the business their suppliers of products and services.
- (3) The following of this ‘cascade’ process to the next level of suppliers.

It was suggested that such an approach would:

- o identify businesses dependent specifically on the native hardwood forest industry
- o gain an understanding of the changes induced in these businesses by the changes in the forest industry
- o assess any potential threshold effects for these businesses
- o trace the chain of business supply through providers to the forestry industry, their providers, and so on.

The adoption of this approach would provide a strong focus on the key suppliers to the timber industry, which would not be possible utilising a broader survey of businesses within nominated townships or catchment areas, where a wide range of business may require to be contacted before clear timber industry relationships could be identified.

With regard to the scope of the project, it was agreed with the client that:

- o the relevant period over which changes should be assessed was the financial years 1995/96 and 1996/97
- o suppliers located outside the Eden CRA would be noted but not followed up.

3.2 Basis of the Approach

It was recognised that any research and analysis attempted would be, in economic terms, a partial analysis, focusing on aspects of forest industry expenditure considered of particular importance for the purposes of the study.

Within this context, focus was made on:

- o immediate effects relative to those with a significant time lag
- o regional effects relative to extra-regional effects
- o marginal changes relative to non-marginal changes
- o changes in businesses behaviour rather than that of wage and salary earners

Immediate Effects. The majority of native forests in the Eden region are in public ownership. Decisions about access to forest resource are made by governments, in consultation with existing industry and stakeholder groups. In the Eden region, mills have contracts with harvesting and hauling companies to provide the resource from the forests to the mills. Reductions in resource availability initially affect the mills themselves, and this directly affects timber contractors and sub-contractors, either in terms of time worked or redundancies. Declines in timber contracting work initially affect, in a business sense, suppliers to those companies. The effects on suppliers for whom a majority of their income is derived from servicing the timber industry may be serious and immediate. These effects are then likely to spread out into the community, over time, as suppliers to the industry feel the effects of changes in the timber industry and respond to them.

Regional Effects. A distinction was made between expenditures likely to have significant effects in the Eden CRA and those likely to have their major effects either elsewhere, or more attenuated in time. It was considered, for example, that the payment to a provider of welding services would have a direct effect on business in the region, whereas the payment of an insurance premium to a major firm headquartered in Sydney and providing branch services in the Eden region was less likely to have direct and local effects. In some cases, for example in the purchase of large machinery and other capital items, the whole transaction is done by the local business directly with a major company without local representation.

Marginal Effects. Marginal effects are those likely to ensue from relatively small changes in the industry.

Business Behaviour. The focus of the project has been on the local impacts of forest industry expenditures and changes in these, in relation to business entities. There will be in addition effects in the community due to changes in the levels of wages and salaries,

and these will also have consequential effects on businesses in the region. Because of the widespread nature of consumer purchasers, these effects are likely to be diffused across the whole range of businesses in regional and local centres.

In taking the approach outlined, an important practical consideration has been with regard to the likelihood of receiving co-operation from businesses in relation to information sought. It was decided therefore to concentrate requests on readily available core financial information as follows.

The questionnaire would ask businesses to identify as best they can:

A. Business Services

Payments per annum for business services such as insurances (Workers Compensation, Public Liability, building and plant insurance); vehicle registration and insurances, lease payments on vehicles; company expenses such as company registration, payroll tax, compulsory superannuation payments, bank and/or leasing fees; running expenses such as power, telephones; and similar expenses

B. Wages and Salaries

Payments per annum in wages and salaries

C. Payments to Timber Contractors and Sub-Contractors
(for mills and contractors only)

D. Council Rates

E. Current Purchases from Suppliers

Total expenditure per annum on running the business, not counting expenditures on business services (A) or wages and salaries (B), payments to contractors and sub-contractors (C), or council rates (D).

The quantity A attempts to identify expenditures, changes in which are unlikely to have immediate effects on businesses in the region; B distinguished wages and salary payments; C distinguishes payments to timber contractors and sub-contractors, necessary to avoid double counting; and D distinguishes a small element of local expenditure going to local councils.

The quantity E identifies current purchases. Respondents were then asked to estimate the percentage of current purchases E spent in the Eden-Bega-Bombala region. This figure provided an estimate of the direct impact of expenditures by the business in the Eden region.

3.3 Project Fieldwork

The fieldwork was divided into two phases which were carried out in sequence:

- Phase 1: involving organisations and businesses in the timber industry
- Phase 2: involving businesses not in the timber industry and supplying goods and services to that industry.

Fieldwork: Phase 1

A questionnaire form was developed and agreed with SAU/DPIE and RACAC, reflecting the goals of the project.

As a first step, a personal approach was made to the three major organisations responsible for the timber industry in the Eden region: Harris-Daishowa P/L, Tablelands Sawmills (Bombala), and the NSW State Forests (Eden Office). (An interview was also carried out with a representative of Boral Timber, the proprietors of the now closed 'Duncan's' sawmill in Eden.) Wide-ranging face-to-face discussions were held with representatives of these organisations, focused on the matters identified in the questionnaire. Included in the discussions was the building up of a profile of the suppliers to each organisation, and in particular the listing of all the individual companies directly involved with them in the timber industry (harvesting contractors and haulage contractors), and beyond.

Each of the identified harvesting contractors and haulage contractors was then contacted, and in all cases possible, a personal visit and interview by a member of the project team was arranged, to assist in the completion of the questionnaire. Visits included:

mills and forest managers	4
harvesting contractors	12
haulage contractors	10

Following these initial contacts, some changes to the survey instrument were introduced in order to clarify the information being sought and to make the instrument more comprehensible. This necessitated additional contacts with some of those first approached.

The majority of the fieldwork for phase 1 was carried out between late August and the end of September 1997.

Fieldwork: Phase 2

The suppliers to the timber industry identified by individual companies interviewed in phase 1 of the project were approached in two ways.

A first group were approached by telephone, the nature of the research explained, and if they were amenable, a questionnaire was faxed to them with a request for its completion and return. Reminder phone calls were made to those not returning questionnaires in the agreed time. In some cases multiple phone calls were made. Personal visits were made to a number of non-respondents.

A second group of businesses were posted a somewhat reduced questionnaire, accompanied by a covering letter requesting completion and return. Reminder calls were also made to this group.

This phase of the field work was carried out over the period early October to early November 1997.

A total of about 240 questionnaires were distributed in Phase 2, from which 48 completed forms were returned. Seven letters were marked 'return to sender' and returned. Some other businesses were identified as having gone out of business or were otherwise untraceable on the information provided. When these were excluded, a total of 207 identified and characterised businesses were considered to form the basic 'list' of the population.

A copy of the questionnaires used in phases 1 and 2 are included at Appendix D.

Part III. The Timber Industry

4. The Timber Industry in the Eden CRA

4.1 Industry Structure

The providers of final output from the native hardwoods timber industry in the Eden region currently comprise three organisations:

- . Harris-Daishowa (Australia) P/L ('HDA'), who produce woodchip for export to Japan
- . Tablelands Sawmills (Bombala) P/L, a hardwood sawmill, which also provides pulpwood resource to HDA, and
- . NSW State Forests (Eden Office), an agency of the NSW Government, responsible for the multiple-use management of the State forests in the Eden region and in part for the allocation of forest resources to the two foregoing companies.

(A fourth major component of the Eden region timber industry was the Boral sawmill located at Eden (commonly known as "Duncan's"). In recent years this mill employed about 23 full-time staff; it announced its closure in December 1995, and this was completed by May 1996.)

The mills have Wood Supply Agreements with the NSW government for the provision of native timber resource. The management of the resource is the responsibility of NSW State Forests. The mills have contracts with individual logging contractors to provide a certain volume of logs/pulp to the mills per annum. These contracts are usually for five years duration and have commonly been renewed. However in recent years, because of the reductions in available resource volumes, those contractors whose existing contracts are at an end have their names drawn out of a hat to determine who will receive subsequent contracts.

Contracts for the physical movement of resources from the forests to the mills are executed by harvesting contractors and by haulage contractors. Harvesting contractors work as crews in the bush and are responsible for felling, snigging, debarking, stacking, grading and loading the timber in the forest situation. A typically sized forest crew would include 3-4 individuals specialised in the various tasks. This is the minimum size of a contracting company, and for some is the actual size. These companies are highly capitalised for their size, involving large items of machinery.

The transport of the forest logs to the mills, and of pulp logs and chips from sawmills to HDA, is either carried out with trucks owned by the timber contractors, or by independent haulage contractors sub-contracting to the harvesting contractors. Sometimes the haulage contractor is contracted directly to the mill. Haulage contractors are typically small companies with one or two trucks, often with the owner driving one

truck and his spouse as a co-director, providing secretarial and financial functions to the business. As the cost of a new truck is in the region of \$200-300,000, there is a large capital commitment by haulage contractors in their businesses.

The mills are essentially monopsonistic purchasers of the services of harvesting contractors and to a lesser degree haulage contractors.¹¹ This is particularly because of the specialised nature of the machinery used by and lack of alternative uses for it. A few contractors have been able, within the size of the local market, to diversify into providing road maintenance and fuel haulage services, for example.

Haulage contractors are, at least in theory, in the possession of a major asset (truck) which, if suitably modified, is capable of use in a variety of haulage tasks. However due to the economic situation in the area, it has been the common experience of these contractors when laid off that they have not been able to find alternative work, and if they have stayed in haulage, have typically gone from full time to part-time or casual employment.

4.2 Some Financial Details

4.2.1 Business Outgoings

a. mills & NSW State Forests

The current size of the industry in terms of final sales was in the range \$65-70m in 1996/97. Employment as at 30 June 1997 was 163 full-time staff, three part-time and no casuals. In terms of scale, the industry is dominated by HDA, which accounts for over 50 percent of employment and over 75 percent in terms of value of final sales, approximately.¹²

b. harvesting contractors

Currently operating in the Eden CRA are twelve full-time harvesting contracting companies (one of which includes three companies) responsible for 16 bush crews. Individual companies typically have a total sales of between \$1-5m, although they range on both sides of these figures. Employment at 30 June 1997 is 127 full-time staff, and eight part-time and casual staff.

c. haulage contractors

At 30 June 1997, there were in the industry 10 independent haulage contracting companies, although one has since left the industry. Employment is 16 full-time (including in some cases spouses as office managers etc.), and six part-time and casual.

¹¹ In a strict sense, monopsony is a buyer's monopoly: the purchase of a factor of production by a single buyer. Monopsonistic elements can arise in markets in which the number of buyers is small, whereby sellers do not control factor price, which can be determined by monopsonistic buyers.

¹² While the Tablelands P/L mill at Cooma does access resource from the Eden Management Area, employment and other statistics from that mill are not included here.

Haulage contractors with one truck commonly have a business with total sales in the \$100-200,000 range, with a total salaries and wages bill of less than \$50,000.

A summary of some financial allocations by companies in the timber industry (mills, State Forests, harvesting and haulage contractors) is given in Table 1. The categories employed are those corresponding to the questionnaire used (see section 3.2 and Appendix D). 'Payments to contractors' are not included in the Table as this would involve double counting. The figures in Table 1 should be considered as 'best estimates' for the industry as not all companies provided all figures sought.

Table 1: Some Annual Expenditures by the Timber Industry

category	expenditure (\$m)
business services	10.49
wages & salaries	10.09
local authority rates	0.13
current purchases (total)	34.24
current purchases (regional)	14.85

Note: The figures in the Table do not include royalty payments.

Business services expenditures effectively represent an outflow of monies from the Eden region (estimated at \$10.49m), as do extra-regional current purchases (estimated at \$34.24m - \$14.85m = \$19.39m).

Monies retained in the region include wages and salaries (\$10.09m) and regional current purchases (\$14.85m). However it needs to be noted that of the regional current purchases, a estimated \$2.03m (or 13.7%) of this is spent as purchases of safety equipment, tyres and particularly fuel, with Palmcrest P/L, a wholly-owned subsidiary of HDA.

Thus, the direct flows of monies from the forest industry into the regional Eden community is estimated as follows:

Table 2: Annual Flow of Funds from the Timber Industry into Eden Region Community

source	amount (\$m)
wages & salaries	10.09
local authority rates	0.13
current purchases (regional - corrected)	12.82
total	23.04

It should also be noted that HDA makes regular direct donations and subscriptions to community organisations in the Eden region. These donations and subscriptions amount

to about \$31,300 annually on average, although significantly larger donations have been made for specific ventures (see Appendix C).

4.2.2 Wages and Salaries

Using the numbers employed in the timber industry and the estimated wage and salary figures, it is estimated that annual incomes (1996-1997) for workers in the three groups within of the industry are as follows:

Table 3: Estimated Annual Incomes in the Timber Industry

group	est. annual income (\$)
mill workers (incl. State Forests)	27,000*
harvesting contractors	45,000
haulage contractors	26,000 - 38,000

* Information from other sources (including DPIE) suggests that average annual income for mill workers is closer to \$35,000.

Haulage contract companies often comprise husband and wife teams, the former driving the truck and the latter responsible for book-keeping and office support. The estimated annual wage/salary depends particularly on whether the wife is considered to work part-time or full-time.

4.3 Changes in the Industry 1996 - 1997

Apart from the continuing uncertainty surrounding the future of the timber industry in the Eden region, the last twelve months has been one of relative stability. The major changes in employment have taken place prior to June 1996 (see section 2 for a history of these changes). This course of events is reflected in employment levels at the end of the two financial years (1995/96 and 1996/97).

Table 4(a): Employment in Timber Industry

	June 1996			June 1997		
	full-time	part-time	casual	full-time	part-time	casual
mills	159	19	0	163	3	0
timber contractors	145	3	3	127	3	5
haulage contractors	18	2	1	16	4	2
total	322	24	4	306	10	7

Employment in mills and NSW State Forests is as follows:

Table 4(b): Employment in Timber Mills and NSW State Forests

company	June 1996		June 1997	
	full-time	part/cas	full-time	part/cas
HDA	77	0	77	0
Tablelands (B'bala)	26	1	26	1
State Forests	56	18	60	2
Total	159	19	163	3

The rise in employment in State Forests has been occasioned particularly by increased attention to fauna and flora assessments.

Although employment has been relatively stable between June 1996 and June 1997, there has been a significant decline in dollars achieved from sales by the industry in the two financial years (95/6 and 96/7). This has been accompanied by significant redundancy payments by companies to displaced workers. It is estimated that total industry sales declined from about \$83m in fiscal 1995/96 to about \$72m in 1996/97, and that redundancy payments were made by the mills and NSW State Forests in excess of \$0.75m in 1995/96, falling to less than \$0.05m in 1996/97.

4.4 Locational Effects and Change

The domiciliary locations of individuals employed in the timber industry are heavily concentrated in Eden (189) and Bombala (68). Other communities with most representation include: Pambula/Lochiel (15), Towamba/Burragate (9), Bega/Tathra (8) and Wyndham (6).

Table 5: Timber Industry Employment by Town/Township (June 1997)

town	full-time	part-time & casual
Eden	185	4
Bombala	61	7
Pambula/Lochiel	14	1
Towamba/Burragate	9	0
Candelo/Wolumla	8	0
Bega/Tathra	7	1
Merimbula/Tura Beach	6	0
Wyndham	6	0
Nimmitabel	3	2
Other (NSW)	2	0
Other (Vic)	5	2
Total	306	17

Note: Eden is defined to include Nethercote,
 Boydtown, Kiah and Wonboyn; Bombala
 to include Bibbenluke and Cathcart.

Using this type of information it is possible to develop and estimate a simple ‘relative exposure index’ (REI) for potential locational effects of changes in the forestry industry in the region. Definition, development and commentary on the proposed index is given in Appendix B.

The calculation of the index employs population data from the Australian Bureau of Statistics’ 1996 Census of Population and Dwellings data in relation to census collector districts. To align the number of timber workers with these population figures it is necessary to adjust the numbers given in Table 5 (above) to correlate with the collector districts.

It is possible to make various assumptions with regard to income figures to be used in the REI calculations. Here, the average income figures employed in the calculation are: mill workers and State Forests \$35,000; harvesting contractors \$45,000; haulage contractors \$32,000. (This is referred to as Assumption 1.) The results are given in Table 6. If however the assumption is made that all three groups of workers get the same annual income (on average), the REI formula takes a particularly simple form that does not involve the income figure (Assumption 2). The results using this assumption are also given in Table 6.

Table 6. Relative Exposure Index for Communities in Eden CRA

town	pop 15 yrs & over	no. timber industry domiciliaries	REI	
			Assn 1	Assn 2
Eden	2,356	(109,66,5)	6.15	6.21
Bombala	1,085	(25.5,28.5,7)	4.61	4.57
Pambula	807	(7,5,2.5)	1.42	1.46
Bega	2,399	(1,6,0)	0.27	0.24
Merimbula	3,303	(2,2,0)	0.10	0.10
‘Remainder’	15,111	(19,20,3)	0.23	0.23
Total	25,061	(164.5,131,19)		

Note: 1996 Census of Population and Housing populations used here refer to populations 15 years and over; numbers employed in the timber industry are of the form: (mills, harvesting contractors, haulage contractors). A full description of method is given in Appendix B.

The REI provides a readily calculated index of relative exposure. Eden and Bombala are highly exposed, with Pambula also exposed to a higher than average extent. Bega (the regional capital and agriculturally based), and Merimbula (tourism and retirement-living based), have less exposure than average. (The average REI taken over the Eden region is 1.00.) The utility of the index should increase if similar calculations are performed for other forestry-dependent communities in other regions.

It is possible to say on the basis of the results of Table 6, that because the estimated annual incomes of the different groups are relatively similar (under Assumption 1), the even simpler Assumption 2 gives a reasonable approximation to annual incomes simple index.

4.5 Major Issues Affecting Individual Businesses

Respondents were invited to identify the major issues currently affecting their businesses. The issue of greatest concern was for resource security and reliable government policies. Uncertainties in the industry had created great concern about to advisability of replacing or upgrading equipment for some contractors. The need to minimise expenditures, keep good accounts and/or restructure their business was mentioned by some. A specific concern was for the consequences for the industry of the possible withdrawal of the 36k ha of timber resource for national park purposes. The complete reliance on HDA was a concern for some, as no alternative employment opportunities were seen to exist. A concern of some haulage operators was the decreased trip lengths from currently harvestable areas reducing their incomes.

The responses from those who chose to answer were as follows:

concern	no.(%)
resource security/supply/long-term agreements/ honouring contracts/reliable government policy/ restoring confidence	16 (43)
retain the 36k ha/maintain/increase quotas	3 (8)
minimise expenses/good accountant/restructuring	3 (8)
complete reliance on HDA	3 (8)
need more work/turnover/employment	3 (8)
replace equipment??	2 (5)
having to take a package	2 (5)
shorter trips	2 (5)
other (one each):	
personal injury/closure of shops, loss of teachers/ species mix available	3 (8)
total mention of concerns	37 (100)

The over-riding issue for businesses in the timber industry, expressed in 43 percent of responses received, is clearly that of resource security and the reliability of policy to

provide confidence for the industry. No other concern is so predominant amongst businesses in the timber industry.

A few respondents expressed personal concerns about their future, and the necessity of taking a redundancy ‘package’. One respondent, wanting to continue work, felt too young to retire but that retraining was unrealistic, attesting: “*It is a big let down when nobody wants you*”, and: “*You can’t go anywhere as you can’t get rid of your house or your workshop*”.¹³

4.6 Levels of Optimism

In response to the question: ‘How optimistic do you personally feel about your business’s ability to adapt and adjust to major changes in industry (generally considered) in the Eden-Bega-Bombala region?’, the following ratings have been recorded:

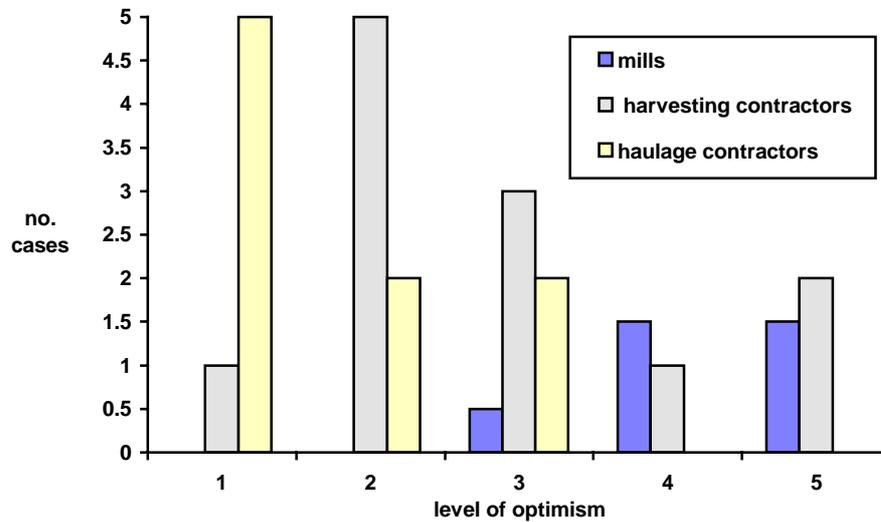
Table 7: Levels of Optimism amongst Timber Industry Businesses

business group	level of optimism				
	1 (not at all)	2	3	4	5 (very)
mills	0	0	0.5	1.5	1
contractors	1	5	3	1	2
truck operators	5	2	2	0	0

¹³ The personal and social effects of forestry industry adjustment processes in the Eden region have been the subject of a consultancy project carried out recently by Rush Social Research for SAU/DPIE, RACAC and the Forest Structural Adjustment Unit of the NSW Department of Land and Water Conservation. The report of that project is entitled: *Structural Adjustment and Mitigative Processes in the Eden CRA: A Social Assessment* (December 1997).

The results of Table 7 are graphed in Figure 1.

Figure 1: Levels of Optimism amongst Timber Industry Businesses



It appears that whereas the mills are reasonably optimistic about their future prospects and adaptability, this is a sentiment not shared on average by the harvesting contractors and more emphatically not shared by haulage contractors.

This is what might be expected. So long as resource is made available, the mills are likely to remain in business and make profit at the resultant scale of operation. Harvesting contractors' optimism depends on the existence and nature of their contracts with the mills. The haulage contractors are more exposed, with less financial resources, and at the end of the chain with little power to influence outcomes.

Particularly the timber contracting businesses are highly specific to the industry, and for both harvesting and haulage contractors there is (essentially) no alternative work in the region.

Part IV. Timber Industry Dependent Businesses

5. Local Businesses Supplying the Timber Industry in Eden CRA

5.1 The Sample of Businesses

The businesses which returned questionnaires (the sample) can be compared to the initial list of businesses (the list) compiled during the first phase of fieldwork. These latter have been reduced to 207 businesses for which their current existence and function could be ascertained. (Table 8)

Table 8: Business List and Sample by ANZSIC Code

ANZSIC subdivision	list no.(%)	sample no.(%)
agriculture/mining (01-15)	13 (6.3)	2 (4.2)
construction (41-42)	18 (8.7)	3 (6.3)
wholesale (45-47)	21 (10.1)	7 (14.5)
retail (food, personal) (51-52)	40 (19.3)	5 (10.4)
retail (motor vehicles) (53)	46 (22.2)	15 (31.2)
transport & storage (61-67)	22 (10.6)	9 (18.7)
property & bus. services (77-78)	17 (8.2)	4 (8.3)
all other	30 (14.5)	3 (6.3)
total	207 (99.9)	48 (99.9)

It may be noted that the list is, as the sample is, spread across all major categories of business. Relative to the list, the sample includes proportionately more motor vehicle retail businesses (which includes vehicle retailing and services such as fuel, parts and repair) and less food and personal retail businesses, more transport and storage businesses and less property and businesses services.

Table 9 compares the list and sample from the point of view of business location.

Table 9. Business List and Sample by Location

town	list no.(%)	sample no.(%)
Eden	94 (45.4)	31 (64.6)
Bega/Tathra	37 (17.9)	3 (6.3)
Pambula	32 (15.5)	6 (12.5)
Merimbula	20 (9.7)	2 (4.2)
Bombala	19 (9.2)	6 (12.5)
other	5 (2.4)	0 (0.0)
total	207 (100.1)	48(100.1)

Once again the list, and the sample, are distributed across all the major towns in the Eden CRA. Proportionately Eden and Bombala towns are over-represented in the sample in comparison to the list, whereas other towns, particularly Bega, are under-represented.

In the following sections it is important to note the above facts in interpreting the results of the survey. In addition it should be recalled that the list of businesses is that of identified businesses supplying goods and services to the timber industry.

5.2 Supply Business Sectoral Structure

An important issue is the extent to which supplying businesses are exposed to risk based on the possibilities of economic change in the region. Commonly businesses with a wide client base can distribute risk in a more satisfactory way than those with a narrow base. Monopsonistic elements will be less likely to obtrude. In the sample of 48 businesses, over three quarters had more than 50 customers per year, while only one had five or less customers in the 1996-97 year, and only six had less than 20. This is shown in Table 10.

The table also compares the client base of the businesses with those of businesses in the Eden regional timber industry, where all but one business (95.8 percent of the total) have less than ten clients, and 83.3 percent having five or less.

Table 10. Businesses' Client Base

number of clients	supplying businesses		timber industry businesses	
	no.	(%)	no.	(%)
5 or less	1	(2.1)	20	(83.3)
6 - 10	3	(6.3)	3	(12.5)
11 - 20	2	(4.2)	1	(4.1)
21 - 50	5	(10.4)	0	(0.0)
more than 50	37	(77.1)	0	(0.0)
total	48	(100.1)	24	(99.9)

Note: Timber industry businesses exclude NSW State Forests

An alternative measure of business sectoral concentration is the percentage of total sales represented by the businesses' 'top-five' customers. The results for businesses in the sample are given in Table 11. And further, Table 12 compares percentage of total sales to the 'top five' customers, with percentage of total sales to the timber industry.

Table 11. Percentage of Sales to ‘Top Five’ Clients

percent sales to top five clients	number businesses
0 - 10	8
11 - 20	7
21 - 30	10
31 - 40	5
41 - 50	5
51 - 60	6
61 - 70	2
71 - 80	0
81 - 90	1
91 -100	2
no response	1
total	48

There are 11 businesses from the sample of 48 for whom sales to their top five companies represents more than 50 percent of total sales. The majority of these businesses (seven of the eleven) are more than 50 percent dependent on the timber industry (lower right quadrant of the following Table 12). The correlation coefficient between the two statistics (percentage of sales to top five and percentage of sales to the timber industry) is 0.584. This no doubt reflects the general though declining dominance of timber in the regional economy and in the businesses in the sample.

Table 12. Sales to ‘Top-Five’ Clients and to the Timber Industry

percent sales to timber industry	percentage of sales to top-five customers									
	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
0-10	8	1	2	1	5	0	0	0	0	0
11-20	0	3	0	2	0	2	0	0	0	0
21-30	0	1	1	1	0	0	0	0	0	0
31 - 40	0	1	2	0	0	0	0	0	0	1
41 - 50	0	1	3	0	0	1	0	0	0	0
51- 60	0	0	1	0	0	0	0	0	0	0
61 - 70	0	0	0	0	0	2	0	0	0	0
71 - 80	0	0	0	0	0	0	1	0	0	0
81 - 90	0	0	0	0	0	1	0	0	0	0
91 - 100	0	0	0	1	0	0	1	0	1	1

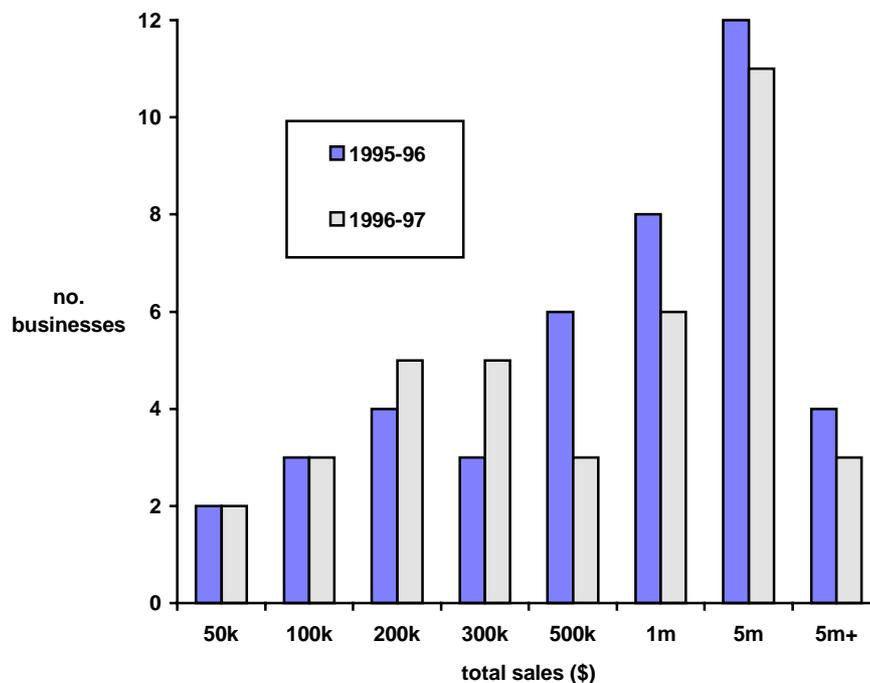
The significance of this correlation is that the businesses most dependent on the timber industry comprise in particular businesses in various types of engineering and maintenance, and spares provision. In general these are specialised businesses, and may be regarded as amongst the more technologically specific and advanced businesses in the region.

5.3 Some Financial Details

5.3.1 Annual Sales

The distribution of businesses in the sample in relation to total annual sales for 1995-96 and 1996-97 are given in Figure 2.¹⁴ In June 1996 there were four businesses with annual turnovers in excess of \$5m and 12 with annual turnovers of between \$1m and \$5m; in June 1997 the numbers were three and 11 respectively. The median business over 1995-96 had a turnover of between \$0.5m and \$1m, and this has not changed in 1996-97. In terms of the tranches used for the questionnaire responses, sales have either stayed the same or declined somewhat, and this is reflected in Figure 2 by the general move to somewhat reduced sales particularly for the larger companies.

Figure 2. Distribution of Annual Sales of Businesses

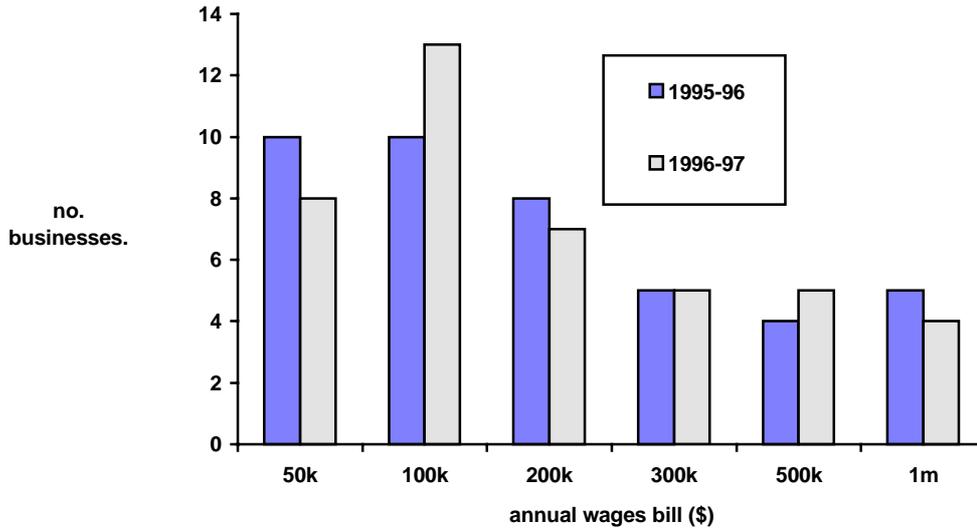


5.3.2 Annual Wages and Salaries

The distribution of size of business by wages and salary bill for the years 1995-96 and 1996-97 are given in Figure 3. Clearly larger businesses (Figure 3) tend to have larger wage and salary bills. However these have not shown any trend movement over the two years. The wages and salary bill for the median business remains at about \$100,000 pa.

Figure 3. Distribution of Annual Wages Bill of Businesses

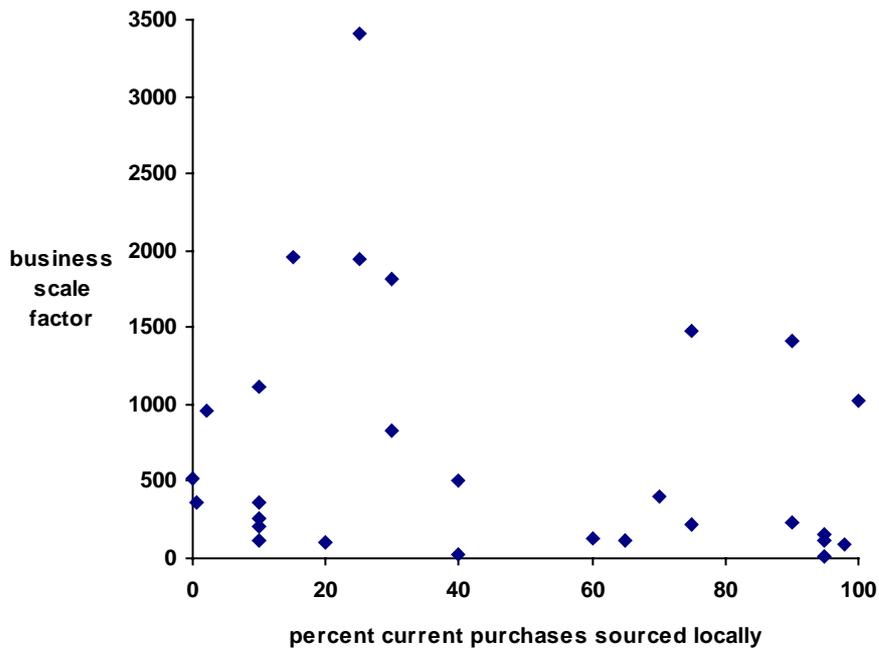
¹⁴ Forty-two of the 48 businesses provided this financial information.



5.3.3 Current Purchases Sourced Locally

It has sometimes been hypothesised that smaller businesses purchase a greater percentage of current purchases locally. Figure 4 is a scatter diagram relating the scale of a business (measured by the dollar sum of business services, wages and salaries, council rates and current purchases c.f. section 3.2) to the percentage of current purchases sourced locally (c.f. questionnaire). A total of 28 respondent businesses provided sufficient data to be included in the scatter diagram. This provides no evidence for the above hypothesis (the correlation coefficient is - 0.154).

Figure 5. Scatter Diagram of Business Scale v. Local Purchases



5.4 Employment

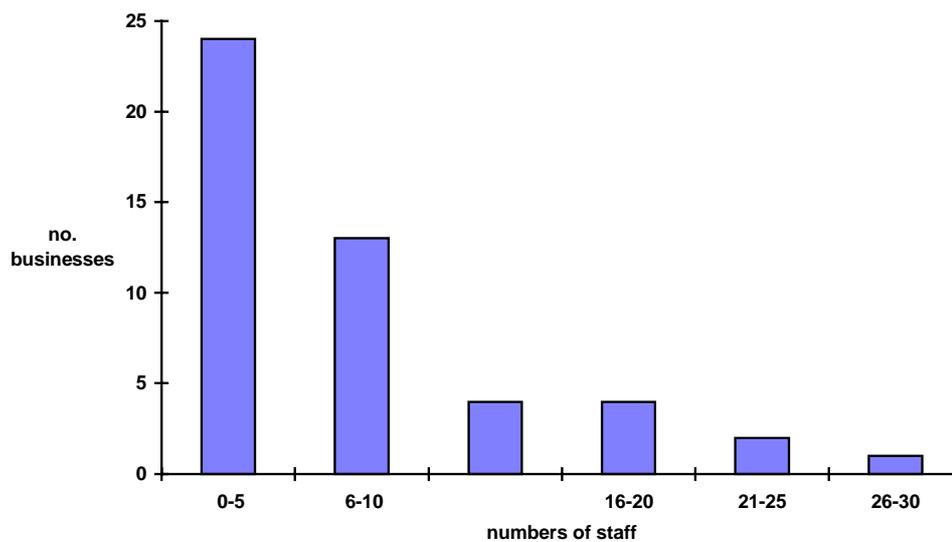
Over the period from June 1996 to June 1997, the number of full time staff in the sampled businesses had declined from 319 to 297, and part-time and casual staff numbers declined from 103 to 81. The median business employed 4-5 full time and one part-time/casual staff in 1995-96, and 4 full time and one part-time/casual in 1996-97.

Table 13. Paid Staff

date	full time	part time
June 1996	319	103
June 1997	297	81

The distribution of business size in terms of employment is charted in Figure 5 (part-time and casual staff counted as half a full-time staff member). The median business size in employment terms is 5-6 full-time staff equivalents.

Figure 5. Distribution of Business Size by Staff Numbers



The distribution of staff domiciles is given in Table 14. Eden provides the domicile for 141 full time employees (48 percent of the sample total), and Bega, Merimbula, Pambula and Bombala each providing between 13 and 14 percent. Eden provides the domicile for almost 70 percent of part-time and casual staff, Merimbula 14 percent and Pambula 10 percent.

Table 14. Distribution of Domicile of Business Staff

town	full-time	part-time & casual
Eden	141	55
Bega/Tathra	41	1
Merimbula/Tura	34	11
Pambula/Lochiel	33	8
Bombala	27	4
Candelo/Wolumla	8	0
Wyndham	4	1
Towamba/Burragate	3	0
Nimmitabel	0	0
Other (NSW)	5	0
Other (Vic)	0	0
	296	80

Note: The identified towns are the same as for timber industry staff (see section 4.4). Eden is defined to include Nethercote, Boydtown, Kiah and Wonboyn; Bombala to include Bibbenluke and Cathcart.

A comparison with the distribution of domicile of those employed in the timber industry (section 4.4) is given in Table 15. The distributions are quite distinct.

Table 15. Comparison of Staff Domiciles

town	staff numbers			
	timber no.	industry %	supply no.	businesses %
Eden	186	(60.5)	168.5	(50.1)
Bombala	59	(19.2)	29	(8.6)
Pambula	15	(4.9)	37	(11.0)
Candelo/Wolumla	8	(2.6)	8	(2.4)
Towamba/Burragate	9	(2.9)	3	(0.9)
Bega/Tathra	9	(2.9)	41.5	(12.4)
Merimbula/Tura	4	(1.3)	39.5	(11.8)
Wyndham	6	(2.0)	4.5	(1.3)
Nimmitabel	4	(1.3)	0	(0.0)
Other (NSW)	2	(0.7)	5	(1.5)
Other (Vic)				
Total	307	(100.3)	336	(100.0)

Note: Part-time and casual staff counted as half a full-time staff member.

Timber industry employees have a much higher proportionate representation in the towns of Eden and Bombala, whereas supply business employees have a higher proportionate representation in Bega, Merimbula and Pambula.

5.5 Major Issues Affecting Individual Businesses

When asked to identify critical issues for their business, over one quarter of respondents (27%) drew attention to the need for resource security in the timber industry. The need to adapt and diversify, and improve customer service was identified in 19 percent of responses, and 13 percent were concerned with the role of government in the region, and a like percentage urged the development of major projects (wharf, recovery mill, CSR mill).

concern	no. (%)
guarantee resources/security in timber industry/ loss of timber businesses	13 (27)
need to diversify(costly)/source work elsewhere/ need to trim operation/reduce workforce/remain competitive/work harder/service existing customers better	9 (19)
government won't commit/tearing rural society apart/lack of consultation/decline in services	6 (13)
need to build new wharf/CSR mill/recovery mill	6 (13)
offer industry incentives	4 (8)
banks putting pressure on small businesses/money tightness/ concern over what to do/any more cutbacks and I can't survive	4 (8)
restore confidence/definite plan	3 (6)
other (one each): turnover falls prices must rise/tourism won't replace/ the damage is already done	3 (6)
total	48 (100)

5.6 Levels of Optimism

The levels of optimism expressed by respondents was as follows (Table 16).

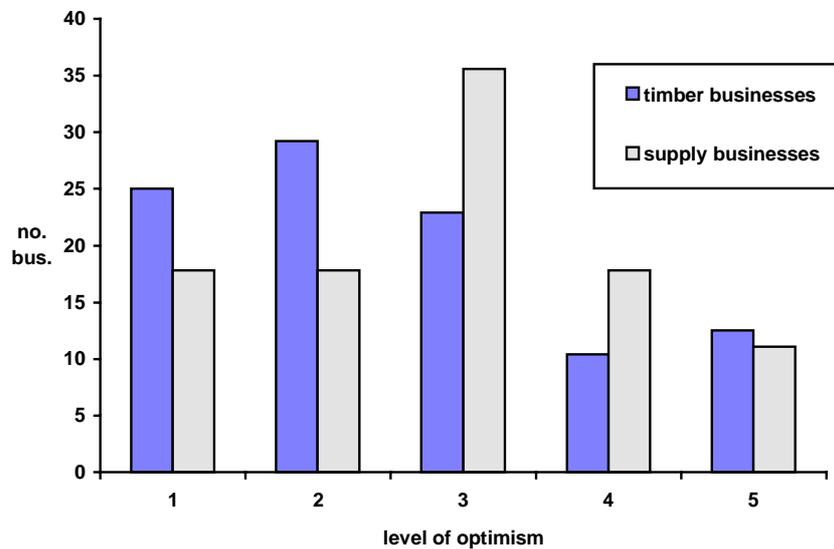
Table 16. Levels of Optimism amongst Timber Industry Supply Businesses

business group	level of optimism				
	1 (not at all)	2	3	4	5 (very)
supply businesses (n=45)	8	8	16	8	5

By and large, the businesses with lesser exposure to the timber industry as customers expressed the higher levels of optimism. Of the five businesses being ‘very optimistic’, four have sales to the timber industry of less than 20 percent.

In a comparison between businesses in the timber industry and supply businesses, the level of optimism was higher amongst the latter group, although there was a degree of variation amongst both groups. Figure 6 compares the responses of each group (each normalised to 100 to ensure comparability).

Figure 6. Levels of Optimism amongst Timber Industry Suppliers



Appendix A.

Two-digit Codes for the Australian and New Zealand
Standard Industrial Classification (ANZSIC)

The following are the divisions, sub-divisions, group titles and codes of the Australian and new Zealand Standard Industrial Classification at the two-digit level (Ref: Australian Bureau of Statistics, *Australian and New Zealand Standard Industrial Classification* (1993 edition), ABS Cat.No.1292.0).

- A. agriculture, forestry and fishing
 - 01 agriculture
 - 02 services to agriculture; hunting & trapping
 - 03 forestry & logging
 - 04 commercial fishing
- B. mining
 - 11 coal mining
 - 12 oil & gas extraction
 - 13 metal ore mining
 - 14 other mining
 - 15 services to mining
- C. manufacturing
 - 21 food, beverage & tobacco manufacturing
 - 22 textile, clothing, footwear and leather manufacturing
 - 23 wood and paper product manufacturing
 - 24 printing, publishing and recorded media
 - 25 petroleum, coal, chemical and associated product manufacturing
 - 26 non-metallic mineral product manufacturing
 - 27 metal product manufacturing
 - 28 machinery and equipment manufacturing
 - 29 other manufacturing
- D. electricity, gas and water supply
 - 36 electricity & gas supply
 - 37 water supply, sewerage and drainage services
- E. construction
 - 41 general construction
 - 42 construction trade services
- F. wholesale trade
 - 45 basic material wholesaling
 - 46 machinery & motor vehicle wholesaling
 - 47 personal and household good wholesaling
- G. retail trade
 - 51 food retailing
 - 52 personal & household good retailing
 - 53 motor vehicle retailing and services
- H. accommodation, cafes & restaurants
 - 57 accommodation, cafes and restaurants
- I. transport & storage

61	road transport
62	rail transport
63	water transport
64	air & space transport
65	other transport
66	services to transport
67	storage
J.	communication services
71	communication services
K.	finance & insurance
73	finance
74	insurance
75	services to finance & insurance
L.	property and business services
77	property services
78	business services
M.	government administration & defence
81	government administration
82	defence
N.	education
84	education
O.	health & community services
86	health services
87	community services
P.	cultural & recreational services
91	motion picture, radio & television services
92	libraries, museums & the arts
93	sport and recreation
Q.	personal & other services
95	personal services
96	other services
97	private households employing staff

Appendix B

A Suggested Relative Exposure Index (REI): A Simple Social Indicator for the Potential Locational Effects of Changes in the Timber Industry in the a Region

The suggested relative exposure index (REI) is an attempt to provide a simple indication of the relative exposure (or relative potential impact) on a town or community to changes in the timber industry. It is a first approximation to what might be developed as more sophisticated indices.

The REI is an index that refers to wage payments and does not include business profits.

1. Definition of the REI

Essentially the REI involves the calculation of the amount of wages paid by the industry that go to persons living in a specified town or community, per capita. This is then scaled so that the average amount of wages paid in the industry (over the region) has a value of 1.0.

Formally, suppose there are t towns and communities in the region. P , the total population of the region, may be written as:

$$P = P(1) + P(2) + \dots + P(t) = \sum_j P(j)$$

where $P(j)$ be the population of the j th town or community ($j = 1, \dots, t$).

Suppose there are a total of N timber industry workers in the region, in k different occupational categories. Then we may write:

$$N = N(1) + N(2) + \dots + N(k) = \sum_i N(i)$$

where $N(i)$ is the number of workers in occupational category i ($i = 1, \dots, k$). If in addition we distinguish townships in which numbers in each occupational category work, then in the standard notation:

$$N = \sum_i \sum_j n(i, j)$$

where $n(i, j)$ is the number of timber workers in occupation i who live in town j .

If $w(i)$ is the annual average wage for occupation i , then the timber industry income to town j is:

$$TI(j) = \sum_i n(i, j) \cdot w(i)$$

and the total timber wage income to the region is:

$$TI = \sum_j TI(j) = \sum_j \sum_i n(i, j) \cdot w(i)$$

Then the relative exposure index for town j is defined as:

$$REI(j) = \frac{TI(j)}{P(j)} \bigg/ \frac{TI}{P}.$$

2. Commentary

Those communities with an REI of greater than 1.00 have more than average exposure to industry change, those with an REI of less than 1.00 have a less than average exposure, and the extent of divergence from 1.00 indicates the extent of exposure.

The index is a probabilistic one in the sense that it is assumed that each worker has an equal chance that his/her job is made redundant. If the change is to increase the workforce, it is assumed that there is an equal chance that a worker will live in each town.

Part time workers may be included as full-time worker equivalents.

It is necessary to combine towns in which few workers live in order to achieve a robust index.

The numerical values necessary to calculate the index are relatively easy to obtain. It would be preferable to use town incomes rather than town populations, but such income figures are not readily accessible.

The REI is an index based on relative values. A determination as to the utility of the REI index would be assisted by calculations made for other towns and communities in timber regions other than the Eden CRA.

3. Calculations of the REI

We assume that the region over which the population is relevant covers the 'Bega Valley Study Region' plus 'Bombala', and that the most appropriate population statistic is population aged 15 and over.

'Assumption 1'

We assume that the average annual incomes received by the three groups of workers, mill and State Forest workers, harvesting contractors and haulage contractors, are \$35k, \$45k and \$32k respectively.

Table B1. REIs for Communities in Eden CRA (Assumption 1)

town(j)	P(j)	P(j)/P (B)	n(i,j)	TI(j)	TI(j)/TI (A)	REI(j) (A/B)
Eden	2,356	0.0940	(109,66,5)	6,945	0.5783	6.15
Bombala	1,085	0.0433	(25.5,28.5,7)	2,399	0.1998	4.61
Pambula	807	0.0322	(7,5,2.5)	550	0.0458	1.42
Bega	2,399	0.0957	(1,6,0)	305	0.0254	0.27
Merimbula	3,303	0.1318	(2,2,0)	160	0.0133	0.10
'Remainder'	15,111	0.6030	(19,20,3)	1,651	0.1375	0.23
Total	25,061	1.0000	(164.5,131,19)	12,010		

(Part-time workers included at half a full-time worker; there are also timber workers that live out of the defined region).

'Assumption 2'

Suppose we assume that everyone in the timber industry receives the same income on average. Then the REI has a very simple form. For town j:

if $A = (\text{no. timber workers in town } j) / (\text{total number of timber workers in region})$

and $B = (\text{population in town } j) / (\text{total population in the region})$

then $REI(j) = A / B$.

Table B1. REIs for Communities in Eden CRA (Assumption 2)

town j	P(j)	TI(j)	A	B	REI(j)
Eden	2,356	180	0.0940	0.5834	6.21
Bombala	1,085	61	0.0433	0.1977	4.57
Pambula	807	14.50.0322		0.0470	1.46
Bega	2,399	7	0.0957	0.0227	0.24
Merimbula	3,303	4	0.1318	0.0138	0.10
'Remainder'	15,111	42	0.6030	0.1361	0.23
Totals	25,061	299	1.0000	1.0001	

Appendix C

A Summary of Donations by Harris-Daishowa (Aust) P/L
to the Eden Region Community 1984-1996

A. Donations by Category		total donation 1984-1996
category		(\$)
hospital/nursing homes/respite & medical care		34,350
schools and educational facilities		52,039
junior sport		59,023
other sport		85,370
charitable causes		21,375
shows and woodchopping		49,911
service clubs		18,755
surf clubs		4,600
community groups		61,660
timber industry related		14,910
miscellaneous		7,875
total		406,867
yearly average		31,297
B. Donations by Year		
year	total donations to region (\$)	donations to Eden c'ty (%)
1984	24,201	67
1985	17,332	59
1986	23,236	51
1987	21,978	38
1988	34,765	24
1989	55,355	25
1990	42,385	43
1991	30,815	15
1992	30,584	41
1993	21,761	55
1994	25,265	35
1995	27,554	47
1996	51,634	56

Notes:

1. Tables compiled from information provided by HDA, October 1997.
2. A donation of \$50,000 towards Nullica Lodge (1995-6) and of \$2,250,000 to the Bega Valley Shire towards the construction of the Merimbula Bypass (1989-90) are not included in the above figures.
3. The number of organisations (clubs, associations, schools, events etc.) on the HDA list of recipients is approximately 80.

Appendix D.
The Questionnaires Employed

Sept 1997

Impact of Changes in the Forest Industry on Local Businesses in the Eden Region

Rush Social Research is carrying out a research project about the effects on local businesses of the changes that have taken place in the forestry industry in the Eden-Bega-Bombala region (sometimes referred to in forestry circles as the Eden CRA). The purpose of the project is to assist in the adjustment process in communities in the Eden-Bega-Bombala region, and in planning for the future. In particular we wish to understand how businesses relate to one another and how the effects of changes spread out into the community.

The project is being conducted on behalf of the Forestry Assessment Branch of the Commonwealth Department of Primary Industries and Energy (DPIE) and the NSW Resource and Conservation Assessment Council (RACAC).

We would greatly appreciate your co-operation and participation. Please return your completed questionnaire to: Marie Lo Cascio, Rush Social Research in Sydney, fax 02 9868 4792, or c/o Box 324, Epping, NSW 2121.

Queries about the project may be addressed to Marie on tel 02 9868 5011, or to Sue Richards at DPIE on telephone 02 6271 6698.

All information provided to Rush is subject to strict confidentiality standards of the Australian Market Research Society.

1. Business Description

Business name

Respondent name.....

Position in company

Telephone fax.....

Years company in operation.....

Description of major business carried on (in the Eden-Bega-Bombala region):

.....

Major location of business in the region

Does your business have multiple sites in the region? If so, what are these?

.....

Is the headquarters of your business outside the region?

If so, where is that?

2. Employment

This question refers to employment in your business in Eden-Bega-Bombala region.
Please include proprietors in staff numbers.
Please distinguish between part-time and casual staff if possible.

Number of paid staff	as at June 1996	as at June 1997
full-time staff		
part-time staff		
part-time / casual staff		

3. Employee Domiciles

We are interested in the way the wages and salaries paid in your business are spread throughout the region. Could you please give the numbers of staff that live in the following towns and townships in the region.

town/township	number of staff June 1997		
	full-time	part-time	casual
Bega			
Bombala			
Eden			
Candelo			
Cobargo			
Merimbula			
Pambula			
Wonboyn Lake			
Wyndham			
Other communities (name):			

4. Income and Wages Costs

Please use financial returns for the financial year July 1995 - June 1996, and best estimates for the financial year July 1996-June 1997.

Gross wages should not include redundancy payments.

Gross wages does not include superannuation payments.

Please tick one box in each column.

dollar amount (\$)	total sales (income)		gross wages		redundancy payments	
	1995-96	96-97 est.	1995-96	96-97 est.	1995-96	96-97 est.
nil						
less than \$50,000						
\$50,000 - \$100,000						
\$100,000-\$200,000						
\$200,000-\$300,00						
\$300,000-\$500,000						
\$500,000-\$1 million						
\$1million-\$5 million						
\$5million-\$10million						
over \$10million						

4. Major Customers for your Products/Services

- (a) How many customers (approximately) did your business have in the last year?
CIRCLE ONE:

a few several quite a number a few dozen many
(5 or less) (6 - 10)(11 - 20) (21 - 50) (more than 50)

[Question 4 continued next page]

- (b) Please give the name and location of your five largest customers:

	company name	city/town
1.		
2.		
3.		
4.		
5.		

- (c) What percentage of your total sales for 1996-1997 would your five largest customers represent?percent
- (d) What percentage of your total sales for 1996-1997 would be to the **timber industry** (include timber mills, logging contractors, timber truck operators, and NSW State Forests)? percent.

5. Business Annual Outgoings

We **are interested** in expenditures which can be considered as 'current' i.e. operating expenditures, raw materials, repairs and maintenance etc.; we **are not interested** in one-off purchases of major assets e.g. buildings, land.)

Please provide 'best estimates' for the 1996-1997 financial year.

Type of Expenditure	total paid out annually (\$)
A. Business Services How much per annum do you pay out in business services including insurances (Workers Compensation, Public Liability, building and plant insurance); vehicle registration and insurances, lease payments on vehicles; company expenses such as company registration, payroll tax, compulsory superannuation payments, bank and/or leasing fees; running expenses such as power, telephones; and similar expenses?	\$.....
B. Wages and Salaries How much per annum do you pay out in wages and salaries? (Total from Group certificates) excludes superannuation.	\$
C. Council Rates	\$
D. Current Purchases from Suppliers What is the total expenditure you make on running your business NOT COUNTING expenditures on business services (A) or wages and salaries (B)	\$

6. Suppliers to your Business

Given the changes that have taken place in the timber industry in the region in recent times, are there any critical issues that you foresee for the success of your business:

8. The Future

How optimistic do you personally feel about your business's ability to adapt and adjust to major changes to industry (generally considered) in the Eden-Bega-Bombala region?

Please choose a number between one and five to indicate your current level of optimism.

CIRCLE ONE NUMBER:

1	2	3	4	5
not at all				very
optimistic			optimistic

Thank you for your participation.

The Impact of Changes in the Forest Industry on Local Businesses in the Eden Region

Could you please take a moment to answer this short survey?

The purpose of the project is to support information already collected to assist in the adjustment process in communities in the Eden-Bega-Bombala region, and in planning for the future. In particular we wish to understand how businesses relate to one another and how the effects of changes spread out into the community.

All information provided to Rush is subject to the strict confidentiality standards of the Australian Market Research Society. We (Rush Social Research) would greatly appreciate your participation.

Please complete this simple questionnaire and return it in the reply-paid envelope to Rush Social Research, a division of Colmar Brunton Research, c/o Box 324, Epping, NSW 2121

or you can fax it to Marie Lo Cascio at Rush Social Research fax 02 9868 4792.
(Marie can also be telephoned on 02 9868 5011)

The project is being conducted on behalf of the Forestry Assessment Branch of the Commonwealth Department of Primary Industries and Energy (DPIE) and the NSW Resource and Conservation Assessment Council (RACAC) (You can contact Sue Richards at DPIE on tel 02 6271 6698 or mob 0419 401 494).

Business Description

Your business name

Postal address

Telephone fax

Description of the major business carried on (in the Eden-Bega-Bombala region):

.....

Is the headquarters of your business outside the region? If so, where is that?

Location of headquarters outside region:

Your name

Your position in company

Total Sales and Wages Costs

3. Please tick one box in each column. Please use 'best estimates'.
Gross wages should **not** include superannuation or redundancy payments.

dollar amount (\$)	Total sales (income)		Gross wages		Redundancy payments	
	1995- 1996	1996- 1997	1995- 1996	1996- 1997	1995- 1996	1996- 1997
nil						
less than \$50,000						
\$50,000 - \$100,000						
\$100,000- \$200,000						
\$200,000-\$300,00						
\$300,000- \$500,000						
\$500,000- \$1 million						
\$1million-\$5 million						
\$5million-\$10million						
over\$10million						

Major Customers for your Business

- 4.(a) How many customers (approximately) did your business have in the last year?
CIRCLE ONE:

a fewseveral **quite a number** **a few dozen** **many**
(5 or less) (6 - 10)(11 - 20) (21 - 50) (more than 50)

- (b) Please give the name and location of your five largest customers: this will tell us how far your business spreads out into the community...

	Company name	City/town
1.		
2.		
3.		
4.		
5.		

- (c) What percentage of your total sales for 1996-1997 would your five largest customers represent?percent
- (d) What percentage of your total sales for 1996-1997 would be to the **timber industry** (including timber mills, logging contractors, timber truck operators, and NSW State Forests)? percent.

Business Annual Outgoings

