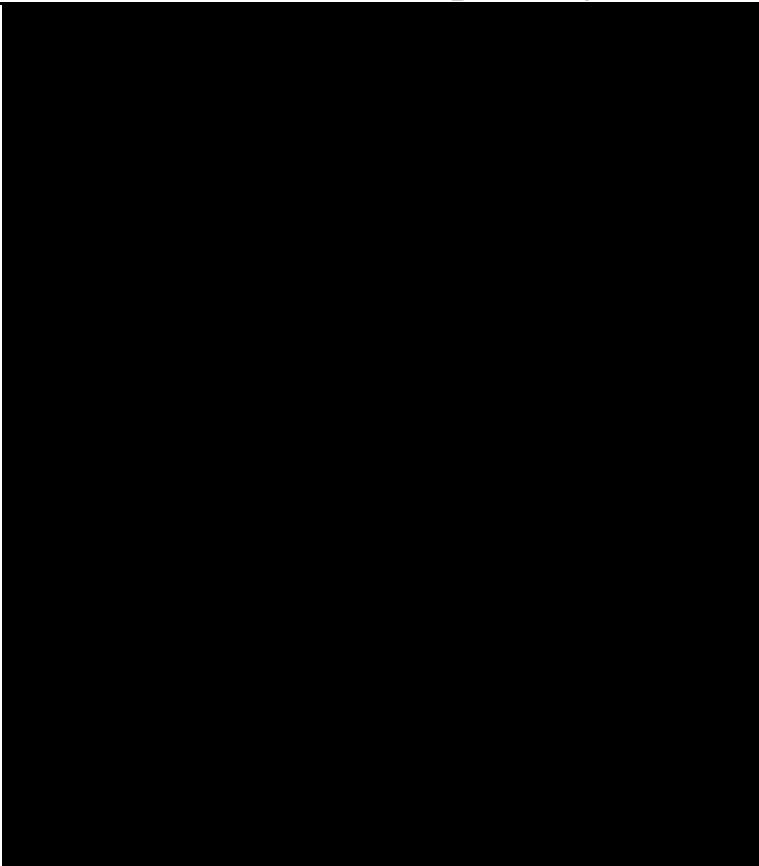




Forest Based Industries Development Opportunities

Southern CRA Region

A project undertaken as part of the NSW Comprehensive Regional
Assessments



FOREST BASED INDUSTRIES DEVELOPMENT OPPORTUNITIES

SOUTHERN CRA REGION

**The Proteus Management Group Pty
Ltd**

A project undertaken for
the Joint Commonwealth NSW Regional Forest Agreement Steering Committee
as part of the
NSW Comprehensive Regional Assessments
project number NS17/ES

For more information and for information on access to data contact the:

Resource and Conservation Division, Department of Urban Affairs and Planning

GPO Box 3927
SYDNEY NSW 2001

Phone: (02) 9228 3166

Fax: (02) 9228 4967

Forests Taskforce, Department of the Prime Minister and Cabinet

3-5 National Circuit
BARTON ACT 2600

Phone: 1800 650 983

Fax: (02) 6271 5511

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

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This report describes a project undertaken as part of the comprehensive regional assessments of forests in New South Wales. The comprehensive regional assessments (CRAs) provide the scientific basis on which the State and Commonwealth Governments will sign regional forest agreements (RFAs) for major forest areas of New South Wales. These agreements will determine the future of these forests, providing a balance between conservation and ecologically sustainable use of forest resources.

Project objective/s

This study is aimed at identifying opportunities for development in the Southern CRA region, that are based on the forest resource contained in the region. A wide range of opportunities have been identified, which have been assessed in terms of their potential to make a contribution to employment growth and to the economic development for the community of the region.

Methods

The study commenced with a forum discussion on opportunities based on the forest resource of the region. In order to provide background to an analysis of this “long list” of development opportunities, a regional profile was first prepared. This profile was concerned with identifying the components of the regional economy, and then in understanding the structure of the economy.

The study process involved a consideration of all the development opportunities from many stakeholders in the region. The total range of opportunities are discussed and then the priorities for development are identified via a structured methodology for screening of the long list of opportunities.

Key results and products

The project has established an objective and transparent system of evaluating industry opportunities that are **based on sustainable use of the forest resource, while providing,**

- clear social and economic benefits to the region,
- commercial returns for private investors in commercial enterprises based on the forest resource and
- justifiable expenditure by government on non-commercial but socially beneficial projects.

The project has provided a means of identifying the impact of constraints on the development of each of the industry opportunities. With that knowledge, policy makers and proponents of industry developments can look to actions and incentives that will enhance the likelihood of any individual project delivering commercial or community benefits to the region.

CONTENTS

1. INTRODUCTION

1.1 THE STUDY

This study is aimed at identifying opportunities for development in forest related industries in the Southern RFA region, that are based on the forest resource. A wide range of opportunities have been identified, which have been assessed in terms of their potential to make a contribution to employment growth and economic development for the community of the region.

Throughout the report, the “timber industry” is used to describe those activities whose aim is to produce wood and wood products, while the term “forest industries” describes those activities utilising the forest resource in some other fashion.

The timber industry has been a traditional part of the region, directly providing jobs and incomes for some, and indirectly for others. While the timber industry is of little relevance in some parts of the regions, other communities have grown on the basis of exploitation of the forest resource. This resource now contains both hardwood (native species) forests, and also plantations which consist predominantly of exotic softwood species.

The hardwood and softwood sectors of the timber industry are regarded as being complementary, rather than as substitutes for each other. The different qualities and attributes of softwood and hardwood enable products from each type to access different markets, and perform different functions. This diversification is important for regional development, assisting in reducing the risks associated with dependency on single markets.

1.2 THE PROCESS

The study commenced with a forum discussion on opportunities based on the forest resource of the region. In order to provide background to an analysis of this “long list” of development opportunities, a regional profile was first prepared. This profile was concerned with identifying the components of the regional economy, and then in understanding the structure of the economy.

Having prepared this profile (see section 2 following), the second part of the study process involved refinement and discussion with other stakeholders, of the development opportunities put forward by the forum. At this stage, inputs from linked projects were considered, other opportunities were added and some that were not forest-based were deleted. Committed projects and their significance to the region are examined in section 3. The resulting range of opportunities is documented (section 4) and then the priorities for development are identified via a screening of the long list of opportunities (section 5). The nature of constraints acting to impede some of the opportunities is discussed (section 6), as is the range of incentives that might be required to overcome or at least minimise these constraints (section 7). Finally, some guidelines for managing development opportunity implementation are provided (section 8).

The methodology is transferable to other regions.

2. REGIONAL PROFILE – SOCIAL AND ECONOMIC CHARACTERISTICS OF THE REGION

2.1 BACKGROUND

This study presents a profile of the Southern Comprehensive Regional Agreement (“CRA”) region (“the region”), for the purposes of :

- a) examining the current role of forest based economic activity within the defined region,
- b) ascertaining the potential for new forest based development opportunities, in terms of apparent and implied abilities and experience of the population, as well as perceived needs of the communities in particular areas of the region

This profile is intended to provide some background to the evaluation of the identified development opportunities which are based on the forest resource of the region. The focus of this profile is therefore towards gaining an understanding of the relative contribution of existing sectors and activities which are based on the forest resource, so that the growth potential existing in such sectors can be more readily appreciated.

For the purposes of developing a better understanding of intra-regional variations, the total region has been examined in terms of three sub-divisions :

- the Coastal sub-division
- the Western Tablelands sub-division
- the Northern Tablelands sub-division

The Local Government Areas (LGAs) taken to represent the region, and the allocation of Local Government Areas to each of the three sub-divisions, are presented in Appendix A. The following Map 1 describes the allocation of the total region into these three sub-divisions.

It should be noted that the Western sub-division consists of just six LGA, of which one (Snowy River) provides over 37% of the total sub-divisional population. There are some problems encountered in analysing the data for the Western sub-division, not only because of this dominance of the total by one Shire, but more particularly because of the unique demographic profile of Snowy River. The Census was taken in August, at the height of the winter ski season, and so there were a significant number of “residents” of Snowy River who were only there for seasonal employment reasons (and/or holidays). This fact has tended to “distort” the average for the Western sub-division, for example by emphasising :

- a high male to female ratio in the population
- a high proportion of “over 15 and under 65 “year olds
- a high proportion of employment in tourism related activities
- a low proportion of “unskilled” persons in the work force.

Details of the demographic profile are reported in other studies (Economic and Social Impacts), but aspects which could have implications for the selection of appropriate forest-based developments in the region are considered here. This profile will overlap the detailed social and economic analyses to some extent, but has been developed for the specific purpose outlined above.

Conclusions reached as a result of analysis of the profile are summarised in Section 2.7.

2.2 DEMOGRAPHIC PROFILE

As a whole, the defined Southern RFA region has a population that is demonstrably different in age profile to that of the State of NSW. As at the time of the Australian Bureau of Statistics (“ABS”) 1996 Census, the region had both a higher proportion of **aged** (persons over 64) and a higher proportion of **young** (persons aged 15 and under). There is also a marked variation between the three sub-divisions – the Coastal area has an even higher representation of both the young and the old, while the Western Tablelands sub-divisions has the lowest proportion of both aged and young persons. While lower than the rest of the region, the proportion of “young” persons in the population of the Western Tablelands sub-division is broadly comparable to State averages. The proportion of “aged” persons is however very much lower than the State (and regional) averages. These differences are demonstrated in Table 2.1.

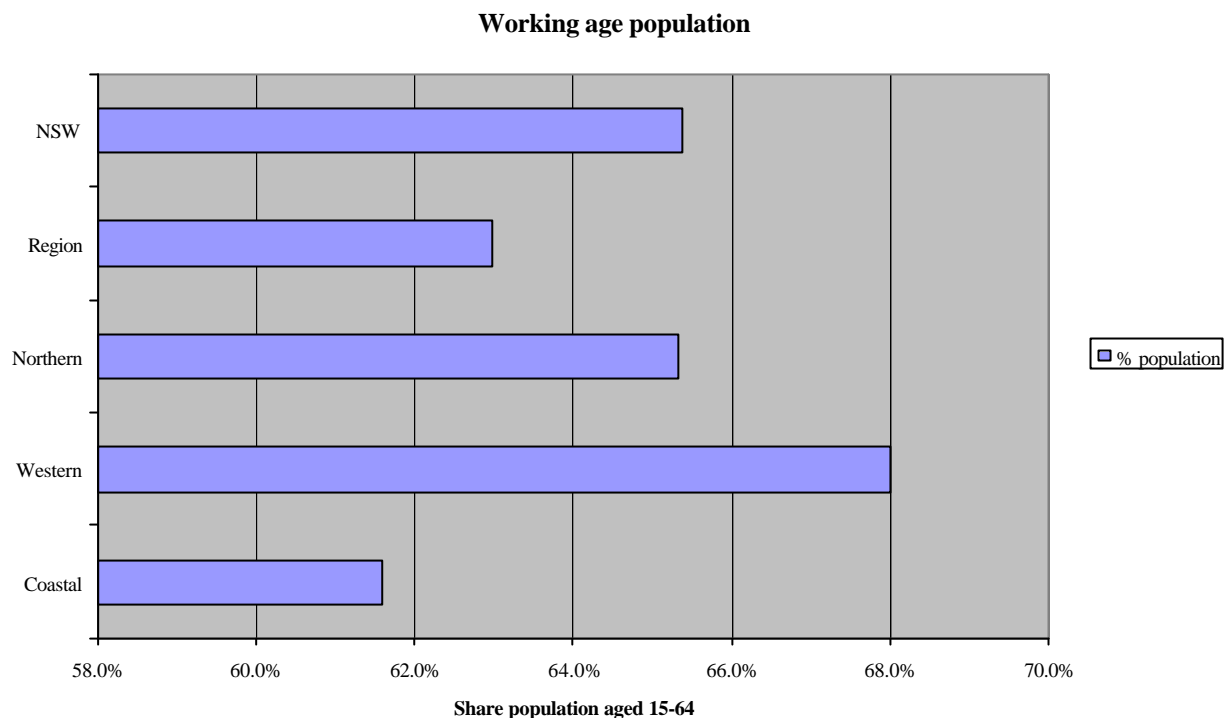
**TABLE 2.1
POPULATION AGE PROFILE**

Subdivisions & Region	Proportion “aged” (aged 65 and over)	Proportion “young” (aged under 15)
Coastal	14.5%	23.6%
Western Tablelands	9.9%	21.4%
Northern Tablelands	10.7%	23.7%
Region	13.3%	23.3%
State	12.6%	21.3%

Source : ABS, 1996 Census

As a result, the region has a smaller proportion of “working age” population (those aged 15 to 64) than does the State, with just 63% in this age group compared to 65.4% for the State. There are some marked variations within the region, with the Coastal subdivision having just 61.6% of population in this age bracket, while the Western Tablelands sub-division had 68%. These intra-regional differences are illustrated in the following figure 2.1:

Figure 2.1



This feature, with the Western Tablelands sub-division having a greater proportion of “working age” people in its population, suggests that employment opportunities will be of relatively greater importance in this area of the region than other sub-divisions.

The region also differs from the State in terms of the male to female ratio in the population. In NSW, there are slightly more females than males – so that the Male-to-Female (“M:F”) ratio is 0.98. The M:F ratio for the region is 1.01 – indicating slightly more males. Again, there are differences within the region, with a particularly high proportion of males in the Western Tablelands sub-division which has a M:F ratio of 1.14 (although this is likely to result from the distortions produced by Snowy River Shire – without the Snowy River population figures, the Western Tablelands sub-division would have a M:F ratio of 1.04)

Conclusions drawn :

In terms of considering development opportunities, the demographic profile of the region suggests that :

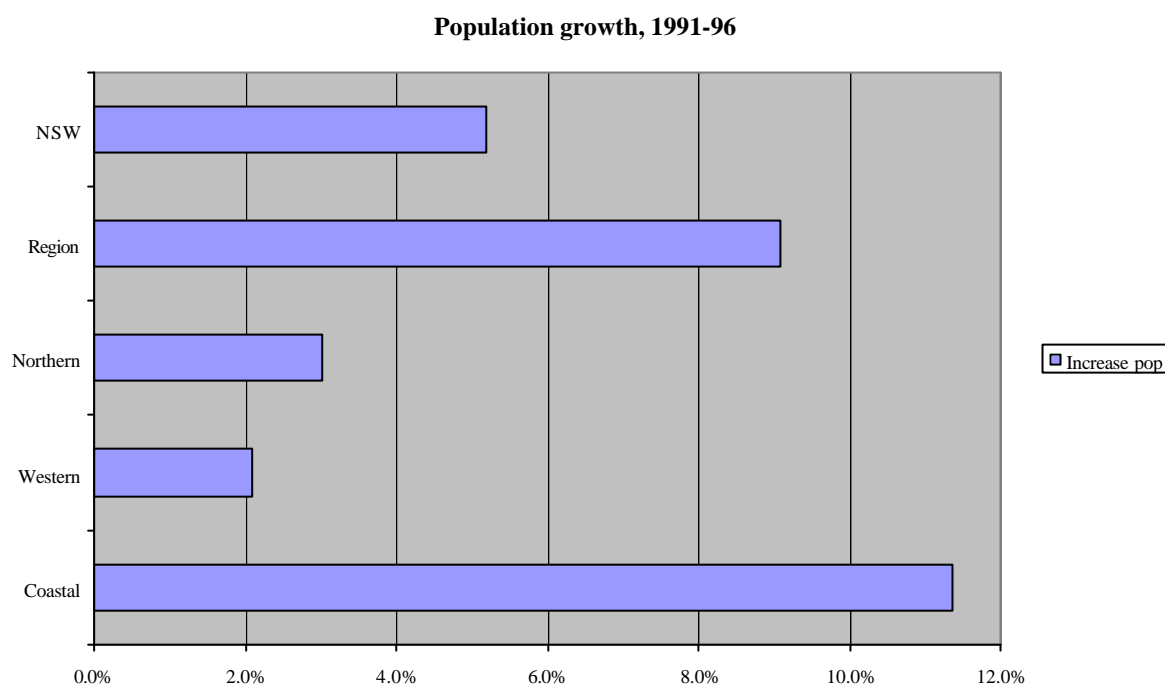
- The region has a relatively large proportion of “dependent” persons (children and retirees) in the population, placing greater emphasis on the work force for their support. Government services in the region could therefore be subject to relatively higher demand in the region, compared to elsewhere in the State, because of this demographic characteristic.
- Any growth in these service sectors could provide employment opportunities – although such sectors are independent of the forest resource of the region.

It is relevant to note that the various New South Wales Department of State and Regional Development (DSRD) regional development strategies relating to the Southern RFA region (NSW Illawarra and South-East regions) have stressed the opportunities available in the human services sectors (such as education) as a component of future economic growth in this area.

2.3 POPULATION GROWTH TRENDS

Over the period from 1991 to 1996, population growth in the region has been much higher than for the State as a whole. However, as indicated in the following graph, Figure 2.2, this growth has not been uniform across the region – the coastal sub-division has performed very differently to the inland regions. With over 75% of the total regional population resident in the coastal sub-division (see Table 2.2), growth rates here tend to dominate the overall regional picture.

Figure 2.2



While the population of the coastal sub-division has certainly increased at rates more than double the State average, population growth in the Western and Northern Tablelands sub-divisions has been much slower. As indicated in Table 2.2, the inland areas have experienced a much more static population.

**TABLE 2.2
POPULATION GROWTH, AND REGIONAL DISTRIBUTION**

Subdivisions & Region	Population 1996 (and share regional pop.)	Growth 1991-1996
Coastal	260,571 (75.5%)	11.4%
Western Tablelands	37,265 (10.8%)	2.1%
Northern Tablelands	47,474 (13.7%)	3.0%
Region	345,310	9.1%
State	6,204,728	5.2%

Source : ABS, 1996 Census

The region had 5.6% of the State's population as at 1996. Forecasts prepared (DUAP, 1994) suggest that this share will increase to 6.6% by 2021. The different growth rates observed across the region from 1991 to 1996 are forecast to continue – the population of the Coastal sub-division will increase at rates more than double the State average over the period 1996 to 2021. With nearly 80% of the 2021 regional

population in the Coastal subdivision, strong growth trends in this area tend to mask relatively static populations in other parts of the region.

As indicated in Table 2.3, the Western and Northern Tablelands sub-divisions will show only slow population growth, under current forecasts. These parts of the region are therefore at greatest risk of population loss, if economic activity is curtailed in the future. It is these inland parts of the region that are most urgently in need of development opportunities, as the Western and Northern Tablelands sub-divisions will have an even smaller share of the total regional population by 2021, compared with 1996.

TABLE 2.3
POPULATION FORECASTS, AND REGIONAL DISTRIBUTION

Subdivision & Region	Population 2021	Growth 1996- 2021
Coastal	388,753 (79.6%)	49.2%
Western Tablelands	41,700 (8.5%)	11.9%
Northern Tablelands	57,647 (11.8%)	21.4%
Region	488,100	41.4%
State	7,450,600	20.1%

*Source : NSW Department of Urban Affairs and Planning (DUAP),
1994 Forecasts of non-metropolitan population*

Conclusions drawn :

In terms of considering development opportunities, these population growth trends would suggest that :

- As a result of current demographics, and the anticipated population growth, the Coastal sub-division will have a very significant demand for aged care and child services (including schools) in the future – see also conclusions drawn from section 2.2 (demographic profile).
- In the longer term, there will be a particularly strong need for new employment opportunities in the Coastal sub-division, because of the anticipated concentration of population growth in this area.

The importance of this region as one of the population growth centres of the State has been recognised in the regional development strategies currently being implemented – the human resource (labour, with an accompanying intellectual capital resulting from expansion in education and training capacity) is targeted as one of the potential source of growth. This growing population, combined with the region's location and existing infrastructure, as well as one of the highest per capita disposable income and average weekly earnings of any region of Australia (SEEDC, 1991), has been identified as one of the comparative advantages of the region.

2.4 ECONOMIC PROFILE

Data available from the ABS "Australian Business Register" (ABS, 1999) has been used to compile a profile of the enterprise base of the region. The Australian Business Register (ABR) is a listing of all business enterprises (excluding those which do not employ any staff) within the region, classified by Australia New Zealand Standard Industry Code ("ANZIC"), and by employment size category. In the case of businesses involved in agriculture, all agricultural operations with the estimated value of more than \$5,000 are included, even if they do not employ wage or salary earners. An analysis of this data base at the 2-digit (sub-divisional) level of the ANZIC has been conducted, for data disaggregated to the regional sub-divisional level, to provide a profile of the enterprise base of the region.

A subsequent examination has been made of the proportion of employment that is provided by various sectors within the economy – at both a regional and a sub-divisional level. This analysis uses employment as a surrogate for the structure of the economy, suggesting the relative importance of different sectors within the economy. Major results are presented in Sections 2.4.2 to 2.4.6 below, for sectors within the economy that are of particular relevance to the consideration of forest-based

development opportunities. Finally, section 2.4.7 outlines the infrastructure profile of the region, which will provide the base for future (and current) economic activity within the region.

2.4.1 Enterprise Base

Data from the Australian Business Register (ABR) for the Southern RFA region indicates that there are over 20,000 separate business enterprises registered – of which nearly two-thirds (63.5%) are located within the Coastal sub-division. This can be compared with 75.5% of the regional population being within the Coastal sub-divisions (see Table 2.2). The other two sub-divisions account for just 24.5% of total regional population, but have 36.5% of all registered enterprises.

The ABR data also indicates that **over 60% of all businesses** in the region employ less than 5 people. Just 1.3% of businesses employ more than 50 people, of which just 0.4% employ more than 100. The economy of the region is therefore dominated by small (and micro) enterprises. This pattern is common across the three sub-divisions within the region, although the dominance of very small enterprises is more extreme in the coastal area, as indicated in Table 2.4 below.

TABLE 2.4
ENTERPRISE BASE OF THE REGION, AND OF THE SUB-DIVISIONS

Subdivision & Region	Enterprises employing less than 5 persons (% total)	Enterprises employing more than 50 persons (% total)	Total number enterprises (% total)
Northern Tablelands	1839 (50.2%)	45 (1.2%)	3661 (18.2%)
Western Tablelands	1818 (49.4%)	36 (1.0%)	3680 (18.3%)
Coastal	8690 (68.2%)	181 (1.4%)	12747 (63.5%)
Region	12,347 (61.5%)	262 (1.3%)	20088 (100%)

Source : ABS, 1999 – Australian Business Register

A further analysis was made of the industry sectors (as indicated by the ANZIC sub-divisions) which contributed to the total enterprise base of the region, and which provided this employment. The largest single sector was agriculture, accounting for 27.1% of all enterprises in the region. Other important sectors, in terms of the numbers of businesses, were retailing (14.7% of all businesses), construction (10.5%) and business/property services (9.8%). As indicated in Table 2.5, there were some significant differences between the sub-divisions in the role of different industry sectors to the total number of enterprises.

TABLE 2.5
INDUSTRY SECTOR CONTRIBUTION TO THE ENTERPRISE BASE OF THE REGION, AND OF THE SUB-DIVISIONS

Sector	Northern Tablelands sub-division	Western Tablelands sub-division	Coastal sub-division	Total region
Agriculture	1848 (50.5%)	1814 (49.3%)	1787 (14.0%)	5450 (27.1%)
Retailing	362 (9.9%)	359 (9.8%)	2234 (17.5%)	2955 (14.7%)
Construction	213 (5.8%)	172 (4.7%)	1735 (13.6%)	2120 (10.5%)
Bus/Prop Services	241 (6.6%)	194 (5.3%)	1541 (12.1%)	1976 (9.8%)
Total Enterprises	3661	3680	12747	20088

Source : ABS, 1999 – Australian Business Register

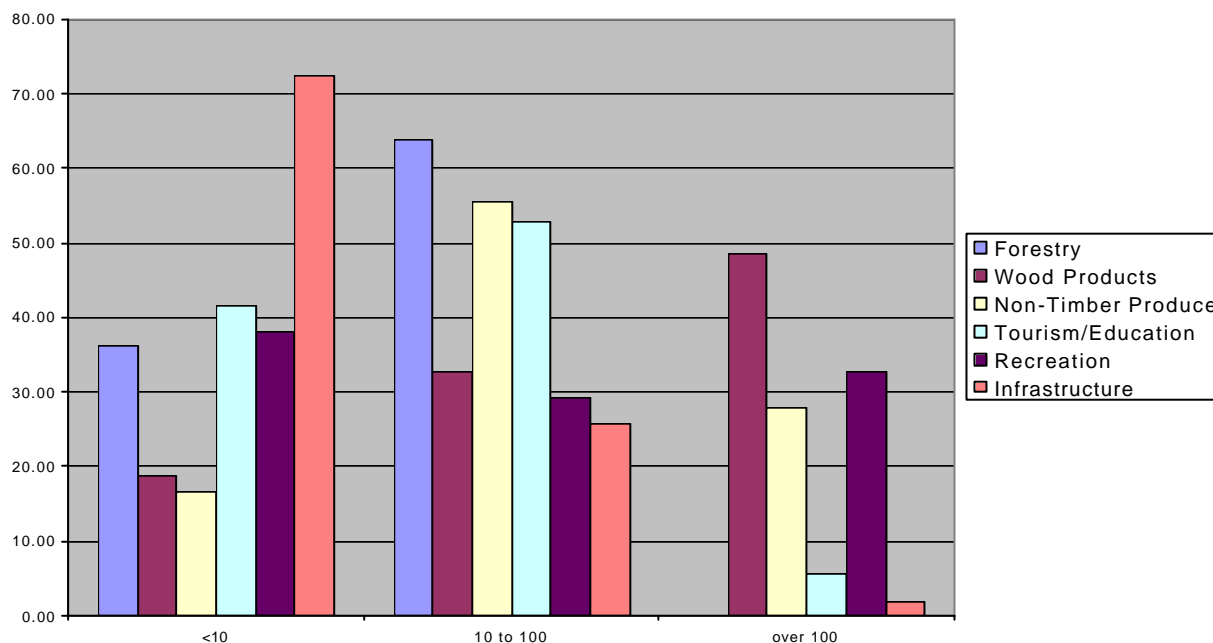
The Northern and Western Tablelands sub-divisions demonstrate some fundamental similarities, with agriculture providing around half of all enterprises. The Coastal sub-division is quite different in its economic structure, with agriculture providing only 14% of all business enterprises, and a much stronger role being played by the service sector.

A further analysis was made of those sectors which can be considered as being based – totally or in part – on the forest resource of the region. These have been taken as forestry, the wood products sector of the manufacturing industry, and tourism and recreation activities. These sectors demonstrate similar characteristics to the total economic profile outlined above – the large majority of enterprises in all these sectors are in the Coastal sub-division, and employ less than 5 people.

Other sectors were also examined more closely, as offering development opportunities for the region that are indirectly linked with forest-based activities. Making assumptions as to average employment levels in each employment size categories allows a comparison of the employment distribution between all these sectors to be made – as illustrated below :

Figure 2.3

Industry Employment Distribution (%)



It is the wood products sector (i.e. processing of logs) that provides a large component of the bigger employers, while in-forest activities, such as logging and forest management, provide smaller scale employers. Conversely, many of the service sectors provide small enterprises.

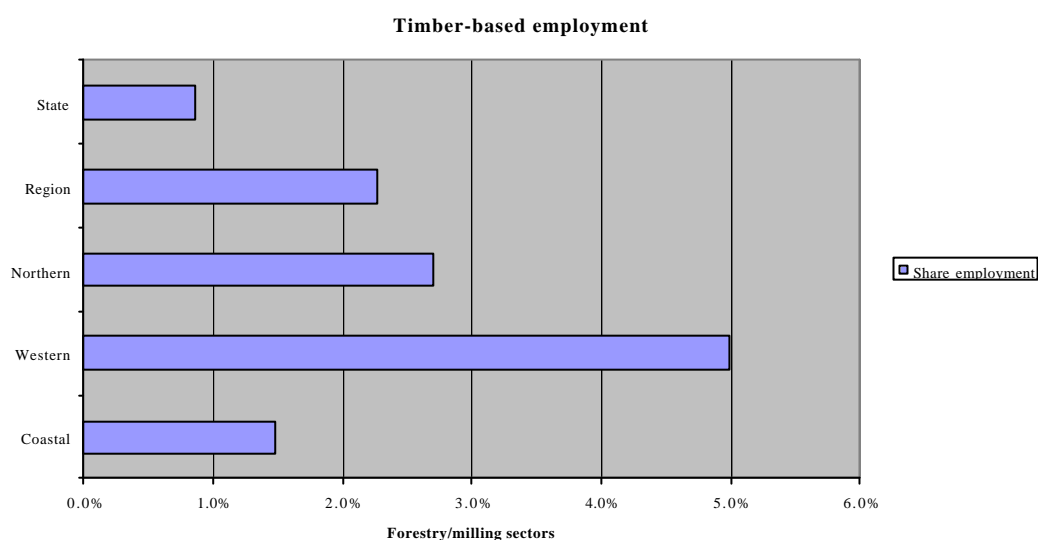
This enterprise structure suggests that the wood products sector consists of larger manufacturing enterprises which individually tend to employ more people than enterprises based in the service sectors of the economy. While other development opportunities exist, the regional economy would be best served by considering any new opportunity as being **additive** to existing enterprises, rather than as **replacements**.

2.4.2 The Timber Industry

Analysis of employment data contained in the ABS Census of 1996 indicates that the timber industry provides 2.3% of the jobs in the region. While not a dominant role, the timber industry is obviously of greater importance for this region than in the State where the sector (consisting of jobs in forestry and in the milling sector) provides just 0.9% of all jobs. Again, there are marked differences between the sub-divisions, with the timber industry providing just 1.5% of jobs in the predominantly hardwood coastal area, but some 5.0% of jobs in the Western Tablelands sub-division. The timber-based sector is particularly important in Tumut (18.5% of jobs) and Tumbarumba (15%), where established softwood plantations and associated processing plants are already a significant part of the economy. The data does not distinguish between hardwood and softwood based employment.

The relative contribution of this sector, which consists of elements of primary industry (forestry activities) and of manufacturing (wood processing), in the region and its sub-divisions compared to the State, is indicated in the following figure.

Figure 2.4

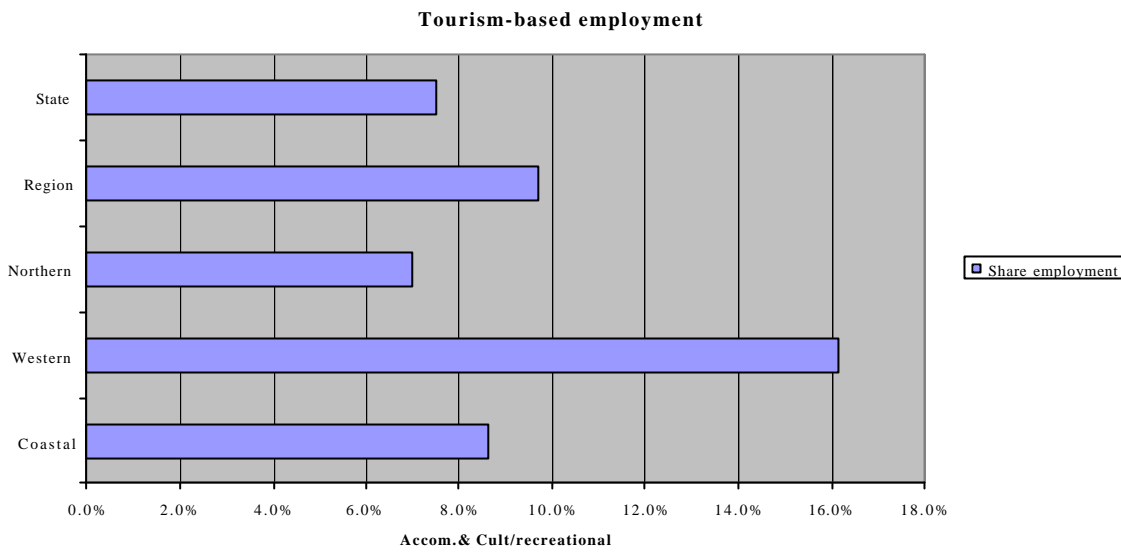


2.4.3 Tourism-related Activities

The “tourism and recreation” sector is not recorded by ABS as a separate sector. The figures here are those for employment in accommodation and restaurants, combined with employment in the cultural and recreational sectors. Within the region, these tourism related activities provide 9.7% of jobs. This compares to 7.5% of all jobs in the State, demonstrating that tourism activities are, proportionally, more important in the region than in the State economy.

The role of tourism-related activities within the region, and a comparison between the region, its sub-divisions, and the State, is provided in Figure 2.5, overleaf.

Figure 2.5

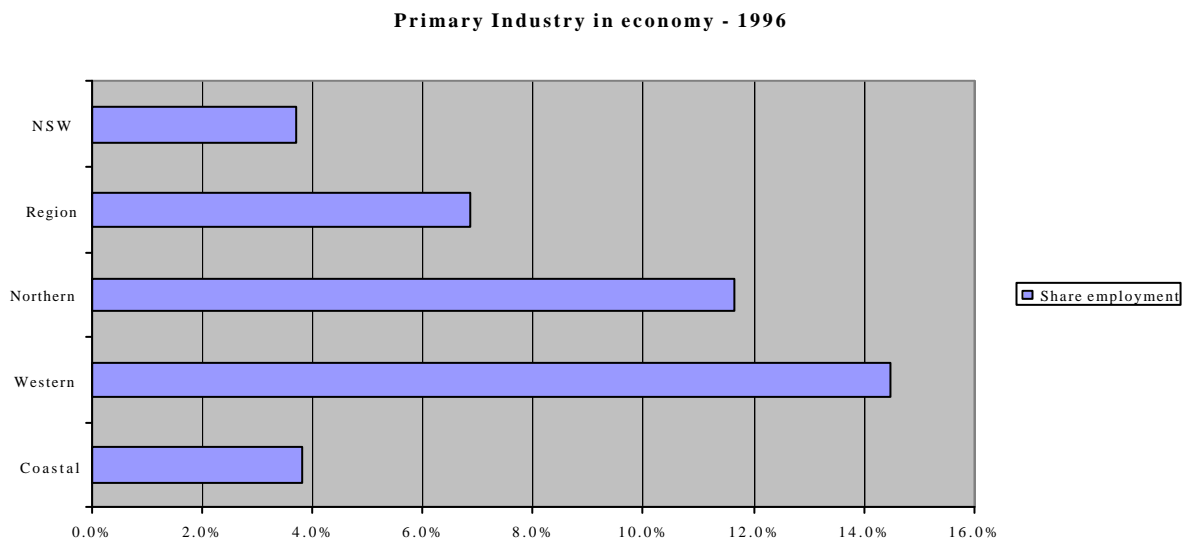


There are marked differences between the sub-divisions, providing further evidence of the differing economic bases between different parts of the region. This tourism sector would appear to be of greatest relative importance in the Western Tablelands sub-division – closer examination indicates that this sub-division is dominated by Snowy River Shire. With 22% of all jobs in the Western Tablelands sub-division being within Snowy River Shire, tourism is of major significance – although this is probably more a function of the timing of the Census (August; in the height of the ski season) than of the role of this sector.

2.4.4 Primary Sector

As would be expected, the total primary industry sector (forestry, agriculture, and fishing) is of much greater importance in the region than for the State as a whole, contributing 6.9% of jobs compared to 3.7% for NSW. While the primary sector figures include forestry, they do not include timber processing. There is again a great variation within the region, from levels of over 14% of all jobs in the Western Tablelands sub-division, to levels very similar to State-wide averages (3.8%) in the Coastal sub-division.

Figure 2.6



The exclusion of Bega Valley from the region has removed a very large portion of the dairying activity present. While dairying is part of overall primary industry activity in the region, it is likely to be a more marginal enterprise in those areas (predominantly in the Coastal sub-division) where it occurs. Following deregulation of the dairying industry in 2000, it is probable that some marginal operators will exit the industry. This could result in some areas of land being potentially available for alternative uses, including an extension of the forest resource in favourable, high rainfall, areas.

2.4.5 Employment and Economic Structure

The contribution of various sectors to total employment in the sub-divisions of the region is presented in the following Table 2.6. Equivalent data for the region as a whole, and for the State, are also provided so that the relative role of each sector within the regional economy (and sub-divisions) can be appreciated.

TABLE 2.6
CONTRIBUTION OF VARIOUS SECTORS TO REGIONAL EMPLOYMENT
(% OF TOTAL EMPLOYMENT)

	Timber (Fig 2.4)	Tourism (Fig 2.5)	Primary (Fig 2.6)	“Value-Adding Manufacture”	Total Manufacturing	Business Services
Coastal	1.5	8.6	3.8	3.9	12.0	10.6
Western	5.0	16.1	14.5	4.8	7.9	11.3
Northern	2.7	7.0	11.7	6.4	9.8	8.1
REGION	2.3	9.7	6.9	4.5	11.0	10.4
STATE	0.9	7.5	3.7	4.3	12.6	15.9

Source : ABS, 1996 Census

The economy of the Coastal sub-division shares many of the characteristics of the State average, although (as outlined above) with a higher relative contribution from the timber industry and from tourism and recreational activities. The primary sector makes a particularly important contribution to the economies of the Western and Northern Tablelands sub-divisions, as does “value-adding” manufacturing – the processing of local raw materials (such as food, fibre, timber, and non-metallic minerals) in a more value-added product.

The Coastal sub-division has more total manufacturing activity (12.0% of jobs) than other parts of the region, which approaches the State average of 12.6% - but this activity is not as closely associated with adding value to local raw materials as in other sub-divisions of the region.

Certain sectors within the total economy of the Southern RFA region have been identified as being “forest-based” – either directly relating to use of the forest resource, or else strongly linked to such activities. While it is not possible to separate the “forest-based” component from most of these general sectors, some indication of the role of relevant sectors within the regional economy can be provided.

The following Table 2.7 provides a summary of employment data for the region, available as at the 1996 Census. These data provide some indication of the relative roles of some of the sectors most closely associated with forest-based activities. However, it is not possible to provide employment data that exactly match the sectors of interest – the numbers in Table 2.7 represent employment in the designated economic sector, part of which can be considered to be associated with forest-based activities. For example, while the “timber” sector is totally associated with timber activities, it excludes the employment associated with State Forests of New South Wales (SFNSW) (classified as Government Administration in the Census) and with log haulage. Conversely, the “tourism” employment includes all jobs in accommodation, restaurants, and all cultural and recreational activities, and so is very much larger than simply forest-based tourism employment.

TABLE 2.7
FOREST LINKED EMPLOYMENT

Forest-linked sector	Economic sector	Employment			
		Region	Coastal	Western Tablelands	Northern Tablelands
Timber	Forestry & logging Wood products	3058	1342	1165	551
Tourism	Accommodation, etc. Cultural/recreational	13048	7843	3776	1429
Apiary/grazing	Agriculture *	7576	2721	2782	2073
Road transport	Transport	5439	3412	893	1134

Source : ABS, 1996 Census. * Apiary and grazing are two elements of the overall “agriculture” sector. It is the employment of the whole sector that is reported in Table 2.7 – further studies will be examining the dimensions of apiary and grazing activities in isolation.

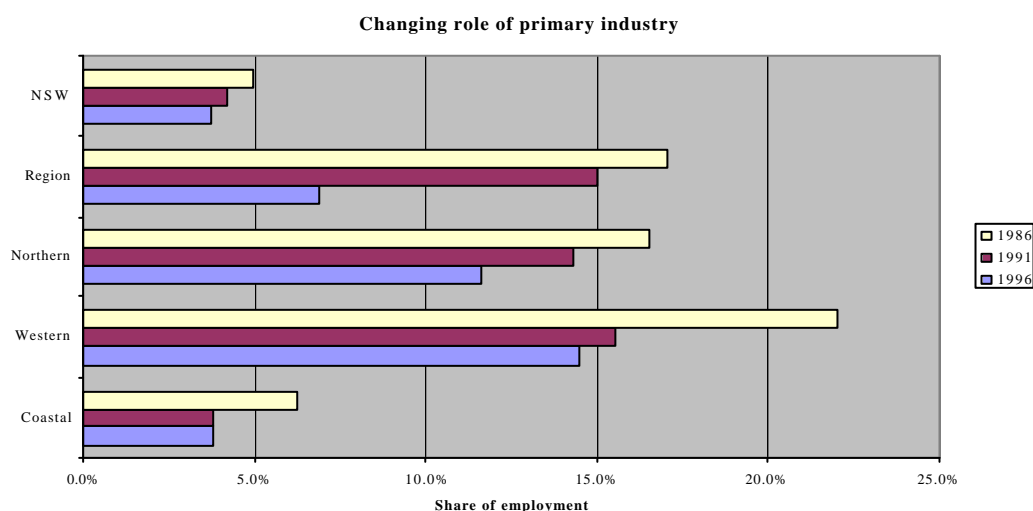
Footnote. It is probable that employment reported in this table includes employment in activities that are not truly forest linked, e.g. coastal tourism.

Despite the dominant role of the Coastal sub-division on regional population (75.5% of total population, see table 2.2), this area does not provide an equivalent share of the jobs which are created in sectors associated with forest-based activities. The Coastal sub-division accounts for around 44% of timber industry jobs, and 60% of tourism-related activities.

2.4.6 Changes in Economic Structure

Over the period from 1986 to 1996, the economy of the region has undergone some structural changes. While some of these – such as the declining relative importance of the primary sector – have been mirrored at a State level, the extent of this change has been more dramatic within the region – as demonstrated in the following graph.

Figure 2.7



Change of a similar nature has occurred with the “accommodation” sector. Although this sector has increased in relative importance in the total State economy, it has expanded to an even greater extent in the region.

Examination of the trend data provided by the three Census collections of 1996, 1991, and 1986 suggest that the regional economy is :

- reducing its dependence on agriculture as a source of employment (17% of jobs in 1986, down to under 7% in 1996)
- increasing the contribution of the manufacturing sector (from 7% of jobs in 1986 to 11% in 1996) while this sector is decreasing in importance at a State level (from 15.5% to 12.6%)
- moving to reduce differences between it and the State economy in other areas, with increases in the importance of sectors such as property/business services, health and community services, and personal services as sources of regional employment, and reductions in the role of the Government/defence sector.
- developing an increased role in the “leisure” sector, as employment in the accommodation and restaurant sector, together with the cultural and recreational services sector, increased from 5.4% in 1986 to 9.7% of total employment for the region in 1996.

2.4.7 Infrastructure Profile

The Southern RFA region is located along the key road and rail routes between Australia’s two largest cities – Sydney and Melbourne – giving the region a sound transport infrastructure. The region is well serviced by freeways and regional highways, and the Sydney-Melbourne rail line runs through it. In addition, there are port facilities at Port Kembla. This well developed transport infrastructure is quoted by the regional development agencies of the region as providing one of its major competitive advantages.

The region has a further competitive advantage in social infrastructure. Education infrastructure is well distributed through the region with several TAFE colleges as well as access to universities in Canberra and Wollongong. The region is recognised as having a highly educated population, with a school retention rate higher than the national average NSW Department of State and Regional Development (NSWS&RD, 1994). Health service infrastructure is provided by a number of public and private hospitals. In addition, the region has access to a number of services in the ACT, which is a regional centre for the provision of specialised hospital and medical facilities.

Other industrial infrastructure is also a strength to the region, with adequate water supplies from a number of large dams. Some of these dams are designed for hydro-electricity and irrigation supply, while others have been designed exclusively for urban water supply. The region is well supplied with electricity, generating 3,740 MW of electricity from the Snowy Mountains hydro-electric scheme. Natural gas is also available at a number of locations throughout the region, as the pipeline from Moomba to Sydney runs through it.

Conclusions drawn :

The region clearly has a different economic structure to the State, with a larger role for primary sector activities such as agriculture and traditional timber-based activities. Major industry sectors include food processing and forestry, which provide the larger employers. While the service sector provides an important source of employment, enterprises in these sectors tend to be very small individually.

A number of industry/knowledge clusters have also been identified by regional development agencies within the region (NSW S&RD) including advanced technology, tourism, education, health services, and value-adding to primary products and raw materials. Only two of these – value-adding and tourism – can be considered to be in any part based on the forest resource of the region.

While structural change is occurring, the regional economy (and therefore employment) is more reliant on the primary sector, and less on the secondary/processing and services sectors.

Any consideration of development opportunities must therefore be based on the facts that:

- forestry and agriculture are proportionately more important components of the regional economy than in the State economy as a whole – natural resources (such as forests, as well as land) play a greater role in the regional economy than in the State as a whole.
- there are distinct differences between the economies of the sub-divisions within the region, which will have important implications for relative skill levels existing in the work force, and for infrastructure availability
- the sectors that can be associated with the forest resource, in a variety of direct and indirect ways (as set out in Table 2.5), account for around one job in five in the region. This level is higher in the Western Tablelands sub-division (more than one job in three), and lower in the Coastal sub-division (less than 1 job in 6)
- the service sector is of greater relative importance in the Coastal sub-division, suggesting that services may be far more limited in the other sub-divisions, where the population may not have access to the same levels of service
- the structure of the regional economy has been changing over the last ten years, so that some differences between the regional and State economies have been reduced in magnitude.

Further information on the data on the economic profile of the region and its sub-divisions, can be found in the sources listed in the References used for this study.

Overall, development in the regional economy for the future will be based on further exploitation of the competitive advantages identified – sound industrial infrastructure, and existing larger (in terms of employment) enterprises based on processing of the natural resources of the region such as food and forests.

2.5 LABOUR FORCE PROFILE

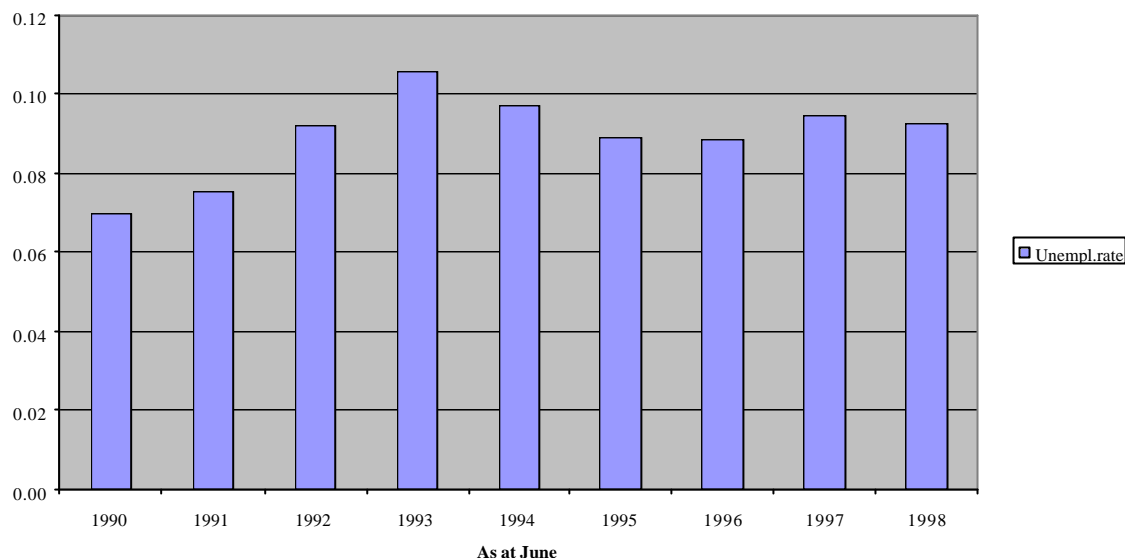
Unemployment rates in June 1998 averaged around 9% in the region, but there were some wide variations within the region, from highs of over 12% in coastal shires such as Eurobodalla and Shoalhaven, and lows of under 5% in inland shires such as Snowy River and Cooma-Monaro. As indicated in the Figure 2.8, recent unemployment rates in the region peaked in 1993, and have fluctuated around 9.0% since then.

However, despite an apparent steadying of the unemployment rate over the period from June 1990 to June 1998, the actual **number** of persons unemployed has increased. This fact demonstrates the problems that can be encountered if undue reliance is placed on unemployment rates as a measure of welfare within a community. Movement in the unemployment rate of an shire is actually tracking two different factors - the number of people unable to find employment, and the size of the labour force. In fact, the data indicate that the labour force within the region has demonstrated steady growth over the last nine years, and there has also been an increase in the number of employed persons.

See figure 2.8, overleaf.

Figure 2.8

Regional unemployment

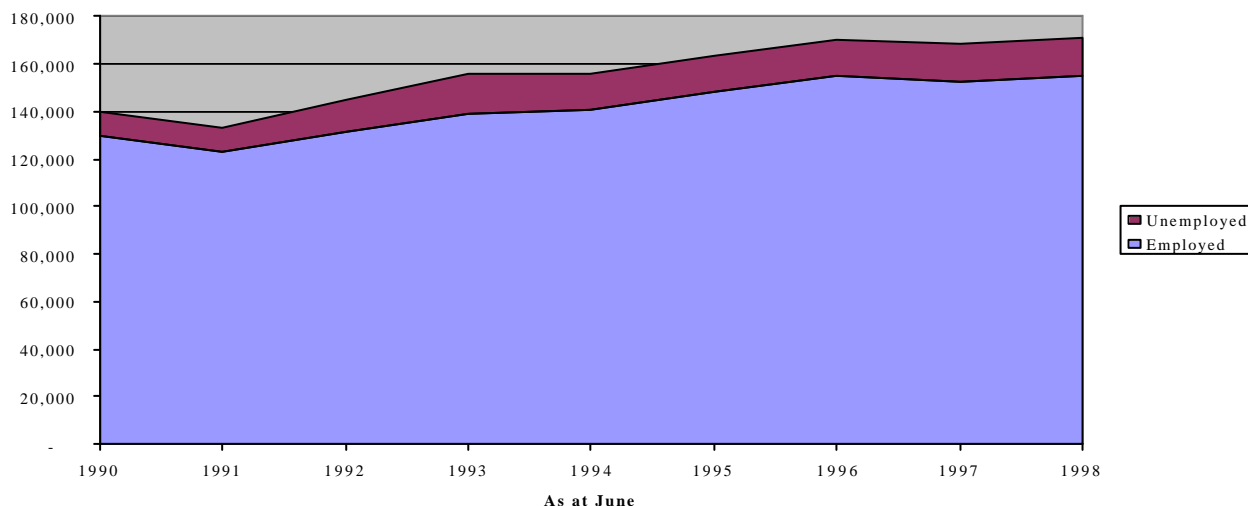


The unemployment rate is simply the proportion of the labour force (those wishing to be employed) that has not been successful in finding a job. An increase in those seeking work (i.e., an increase in the participation rate, and/or an increase in total population, all of which will cause the total labour force to increase), but not finding a job, will cause "unemployment" to rise - even with no job losses in the region. Similarly, an apparent reduction in "unemployment" can be caused by a drop in the size of the unemployed sector of the labour force (decrease in participation rate as people drop out of the labour force, and/or decrease in population), without any actual expansion in jobs available in the region.

Over the period between 1991 and 1996, a total of just over 32,000 more jobs have been created within the region. This represents a 25.9% growth rate in employment levels. Over the same period, total population within the region has increased by just 9.1% - resulting in around 21,300 new residents in the area. However, the numbers unemployed have also increased – by 5,100 or around 51%. The following Figure 2.9, illustrates the changes in the labour force profile for the region as a whole over the period June 1990 to June 1998.

Figure 2.9

Labour Force - Region



This pattern of apparent contradiction means that the labour force was increasing at a faster rate than population. This could result from in-migration of working age new residents, or because of an increase in the participation rate (more of the existing residents of working age decided to join the labour force and seek employment). Indeed, the data show that the labour force of the region increased by around 37,200 over this period 1991 to 1996 – more people were being added to the labour force than new jobs were being created. Over this period, the labour force grew by a larger number than did total population.

The region would therefore appear to have a critical need to ensure the greatest possible creation of permanent, sustainable, jobs for this growing labour force. As suggested elsewhere in the profile, the Western and Northern Tablelands sub-divisions have a particularly strong need for employment. Any development opportunities identified for the region must have employment generation potential as a prime requisite, if Government support is to be provided.

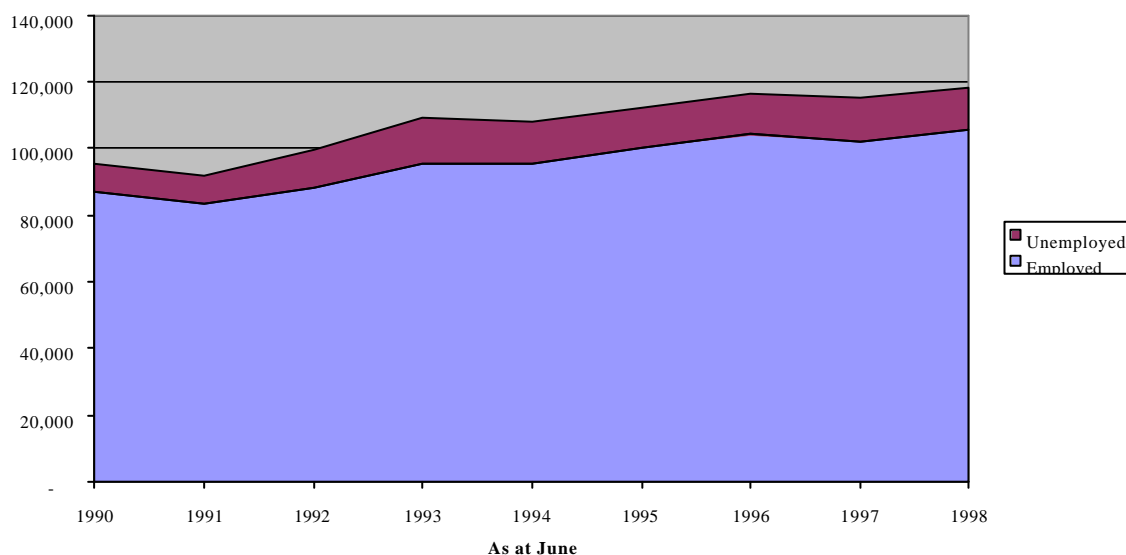
A similar analysis has been made of the labour force profile in each of the sub-divisions. While the overall pattern is similar, there are some differences between the sub-divisions in terms of total labour force growth and in recent employment opportunities apparently available.

Coastal sub-division The labour force of the coastal sub-division demonstrates a similar overall pattern to that of the region as a whole, as can be seen by comparing the previous Figure 2.9 with the following Figure 2.10. This is to be expected, given that 68% of all regional jobs are in this sub-division.

The total labour force of the coastal sub-division has been steadily expanding since 1991. While numbers of jobs held (i.e., the number of employed persons) has also increased, this growth has tended to be lower than the expansion of the total labour force. The inevitable consequence of this mis-match has been an increase in the numbers of unemployed persons in the coastal sub-division.

Figure 2.10

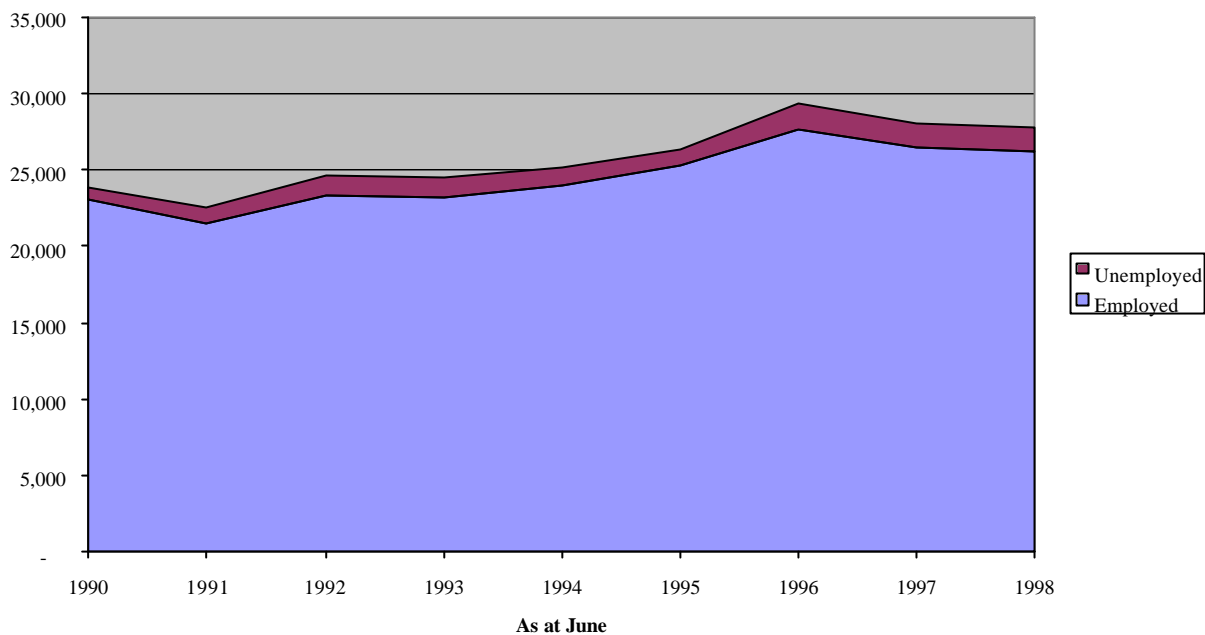
Labour Force - Coastal



Western Tablelands sub-division. The major difference between the Western Tablelands sub-division and the region, in terms of an examination of the labour force, is the very different scale. There were only 26,271 persons employed as at June 1998 in the Western Tablelands sub-division, compared to 155,119 in the Southern RFA region.

Figure 2.11

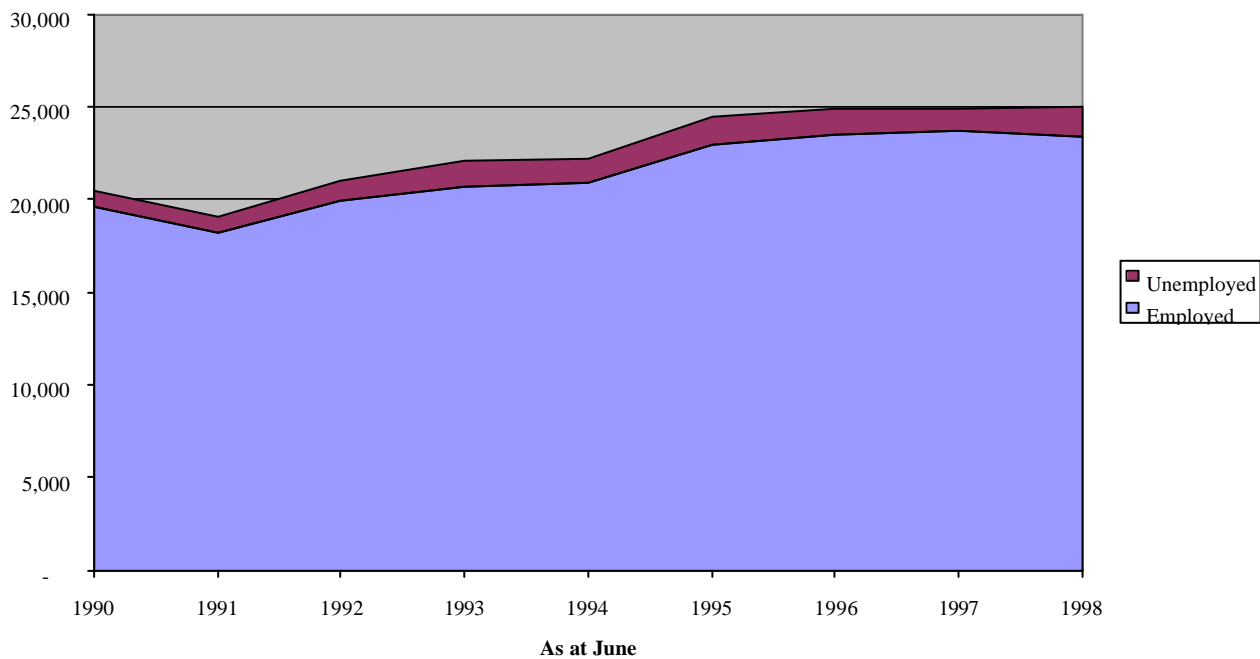
Labour Force - Western Tablelands



As demonstrated in Figure 2.11, the total labour force of this sub-division has also contracted somewhat since June 1996. This has “masked” increasing unemployment to some extent, as jobs have been lost but there are fewer people wishing to be employed.

Figure 2.12

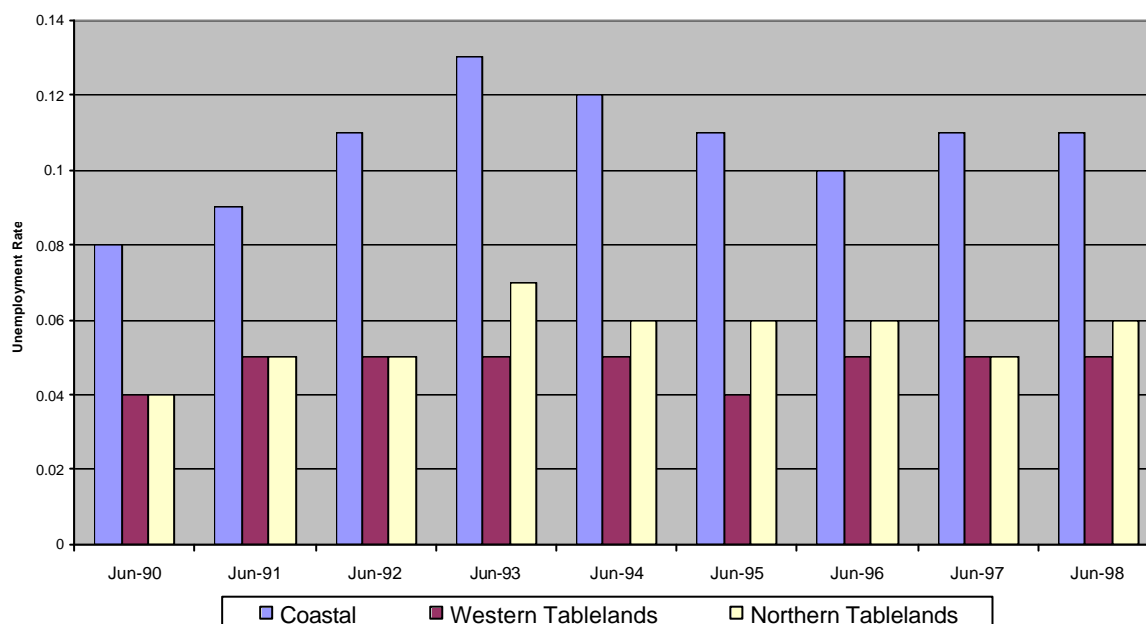
Labour Force - Northern Tablelands



The regional unemployment rate rose to a peak of 10.6% in 1993, and by June 1998 was just over 9.3%. In contrast, the coastal sub-division (while also peaking in 1993) has consistently maintained a higher rate than the regional average, and in June 1998 the unemployment rate in the coastal sub-division was 10.8%. The Northern Tablelands sub-division had a lower rate in June 1998 (6.3%), but this represented a significant increase over the previous year – which is in line with the trends observed in Figure 2.12, with declining employment and a constant labour force. The Western Tablelands sub-division had the lowest rate of all three sub-divisions of the region in June 1998 (5.45%), but this was a higher level than had been experienced over the higher period from 1990 to 1998.

Figure 2.13

Unemployment Rate – Sub-divisions



Conclusions drawn:

In considering development opportunities for the region, the labour force profile outlined above indicates that :

- Variations in the size of the labour force tend to exert more influence on unemployment rates than does the creation of new jobs. A contraction in the total size of the labour force (those wishing to have a job, whether employed or not) can cause unemployment rates to decline, even when actual numbers of jobs (those employed) has declined. It is therefore important to monitor actual numbers employed and unemployed, as well as the total size of the labour force, rather than simply tracking unemployment rates. A decline in unemployment rate can indicate that some individuals have withdrawn from the labour force, rather than an increase in employment opportunities.
- It is vital to maximise the total number of jobs in the region, if anticipated population (and thus labour force growth) is to be matched in actual numbers. Table 2.3 has indicated that by 2021, the population of the region will be 488,100. If the participation rate (those wishing to be a part of the labour force) and the unemployment rate (those members of the labour force that cannot find a job) are held at 1996 levels, then a total of 219,500 jobs must exist in the region by 2021 ($488,100 \times 49.4\% \times (100 - 8.9\%)$). With a total of 155,287 employed positions in 1996, this means that a total of 64,213 **new jobs** must be created in the region over the next twenty-five years – **an average of over 2,500 new jobs every year.**

■ Population growth has been shown to be (and is expected to continue to be) concentrated in the coastal sub-division. It is therefore imperative to retain as many existing jobs as possible in this sub-division. The number of jobs to be found in each of the sub-divisions is :

- Coastal 51,206
- Western 3,299
- Northern 5,031
- TOTAL REGION 64,213

2.6 OTHER SOCIO-ECONOMIC INDICATORS

Other data available from the 1996 Census allows further socio-economic profiling of the region and its sub-divisions, which is pertinent to the consideration of which development opportunities are potentially appropriate.

As with the demographic, economic structure, and labour force profiles presented above, other socio-economic indicators suggest that the region as a whole is different to the State average. More importantly, the Coastal sub-division (with around three-quarters of the region’s population) is very different to the Western and Northern Tablelands sub-divisions, and more closely represents the State average.

2.6.1 Skill Levels

One of the most important elements of the regional profile, in terms of considering various potential development opportunities, is the level of skills available to the regional workforce. The more skilled the population of an area, the wider the range of development opportunities that can be considered appropriate to that area. Data from the 1996 Census is available to indicate the qualifications possessed by the population of the region – this information can be used to assess the proportion of the population that do not possess any qualifications at all, and can thus be considered to be relatively unskilled.

Figure 2.14

Skill levels in the population

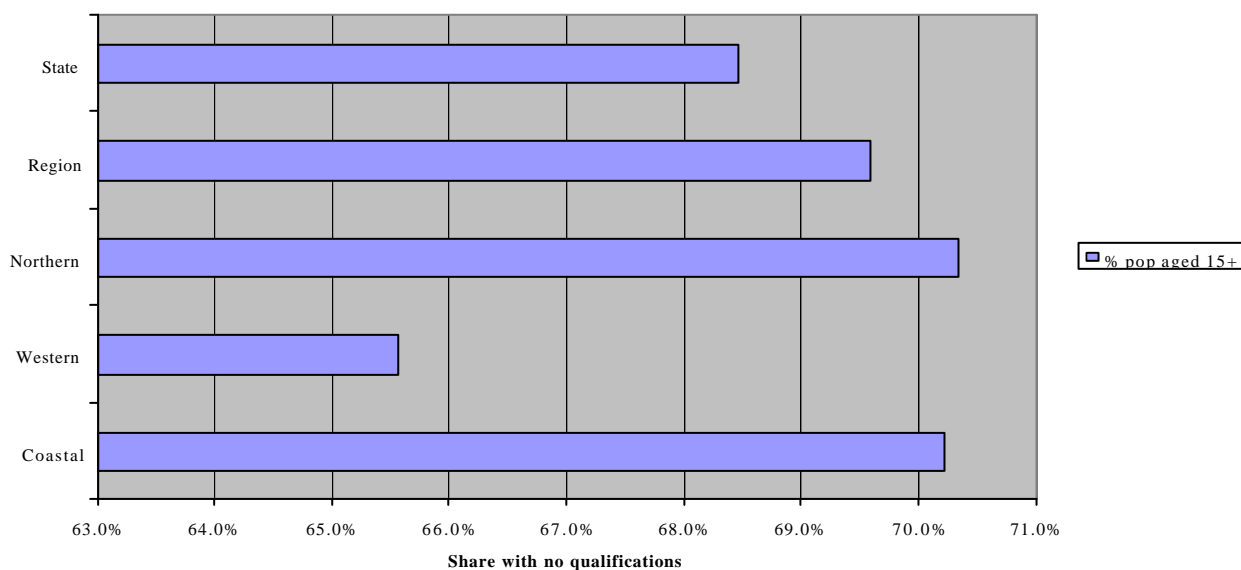


Figure 2.14 indicates that the residents of the region are generally less well skilled than the overall State population – there is a higher proportion of the population aged 15 and over that have no qualifications. The one anomaly is the Western Tablelands sub-division, with a much lower proportion possessing no qualifications – however when Snowy Shire data is removed, the “unskilled” proportion rises to 74%. It is likely that the temporary residents of Snowy Shire, attracted for the ski-season (either because of employment opportunities, or for recreational reasons), possess more qualifications and tend to distort the data. Using the 74% figure suggests that the Western and Northern Tablelands sub-divisions have less skills than the Coastal and may not be able to take advantage of all potential employment opportunities provided by some future developments.

2.6.2 Professional Occupations

This conclusion from 2.6.1 on skills levels, is supported by data on the proportion of “professional” occupations within the workforce, which indicates that the region has far fewer professionals (who could be expected to have generally higher skill levels than others) than the State average – 14.3% as compared to 17.9%.

Again, the Western and Northern Tablelands sub-divisions tend to have even lower levels of professionals – future development opportunities in these areas, in particular, cannot assume high skill levels being available.

2.6.3 Part-time Employment

The final indicator examined as part of this profiling exercise is the proportion of employment provided by part-time jobs. The 1996 Census reports that 31.4% of all employment in the region was part-time, compared to 29% of all employment in the State. While the Northern and Western Tablelands sub-divisions tended to match the State average, the proportion of part-time jobs was higher in the Coastal sub-division. Nearly one-third of all jobs in the Coastal sub-division were part-time, suggesting that many jobs could be of a temporary nature, with little security and perhaps relatively lower rates of pay.

The existence of a high proportion of part-time jobs could perhaps also provide some explanation for the higher growth rate observed in employment (and labour force) than population in this area – individuals are holding more than one part-time job. More representative data, using full time equivalent (FTE) jobs to represent actual employment, would perhaps indicate higher levels of unemployment (and lower levels of employment growth) than reported in the labour profile data reported above.

Conclusions drawn :

Many of these indicators have confirmed conclusions developed in other sections of this profile. When considering forest-based development opportunities for the region, the following factors will be relevant :

- the region would appear to have less access to services
- the Tablelands sub-divisions have lower levels of skills than the Coastal.
- part-time jobs form a large part of total employment in the region than in the State, suggesting that a considerable degree of underemployment may exist – new job opportunities may be taken up without reducing the actual numbers of unemployment.

2.7 IMPLICATIONS FOR DEVELOPMENT IN THE REGION

The Southern RFA region has the potential to be a focus for future population growth in the State of NSW. Economic growth will be required to provide jobs and incomes for this expanding population, and to generate wealth to support public services. The region has competitive advantages, already recognised by development agencies, that relate to :

- strength in the primary sector (food and wood production), which supports value-adding manufacturing capacity
- access to the large and relatively highly skilled and affluent potential market of the ACT
- a strong service sector
- an adequate supply of infrastructure, both industrial (roads, energy and water) and social (community services such as education).

Development strategies defined for the Southern Economic Development region place emphasis on exploiting the human capital of the region - the “brainpower”, combined with the technologies available. This move to a “post industrial” economy is heavily dependent on having the ACT as part of the region – but the Southern RFA does not include the ACT.

This profiling exercise has indicated that the region as a whole differs from State averages, in terms of the sources of economic activity available to support its population, and in terms of the characteristics of the labour force. More importantly, the region is not uniform – while the Coastal sub-division tends to approach State averages, the Western and Northern Tablelands sub-divisions are very different.

The profiling information confirms that the Coastal sub-division tends to share many characteristics with the State, while the Northern and Western Tablelands sub-divisions demonstrate a more typically “rural” nature.

2.7.1 The Present Socio-economic Structure

Overall, the demographics and labour force characteristics, as well as the existing structure of the regional (and sub-divisional) economies, are such that :

- employment creation (consisting of full-time, sustainable, jobs) will be crucial for the future welfare of the region, in order to match anticipated population growth. This conclusion has contributed to the nature of the evaluation process to which all identified development opportunities will be subjected, in that the ability of opportunities to provide jobs will be an important criteria in selecting favoured options
- opportunities requiring high skill levels may not be appropriate immediately, without a comprehensive skills development program being introduced for the region – or unless the labour market of the ACT is accessed easily.
- existing activities which are based on the natural resources of the region are important sources of jobs and economic activities. The enterprise base of the region consists very predominantly of small businesses, employing less than five people – the large employers tend to be enterprises involved in the processing of the region’s natural resources into value-added goods such as food and wood products.
- the inland parts of the region (Western and Northern Tablelands sub-divisions) tend to have a much less diverse economy than the Coastal subdivisions. Around half of all enterprises in the two inland subdivisions are involved in agriculture, including forestry. These subdivisions also tend to have lower levels of employment, slower population growth rates, and lower skill levels. Opportunities relating to further processing of natural resources, and to the use of large land areas, will be particularly relevant to these inland parts of the Southern RFA region.

- the Coastal subdivision has an high proportion of very small enterprises – which can be linked to a more developed service sector within the economy. It has a high dependence on seasonal tourism and accommodation and a rich indigenous heritage, which is largely uncommercialised.
- the differing age structures of the population mean that different development opportunities will be appropriate in different areas. For example, the higher proportion of retirees (and children) in the Coastal subdivision will create a different demand for services than in the inland subdivisions. The age profile will also have implications for labour force and family formation rates, influencing both the supply of potential workers, and the demand for particular classes of goods and services.

2.7.2 The Future Regional Need

Overall, job growth must be sufficient to match population growth – in absolute numbers, rather than in terms of growth rates. The region has almost managed to keep pace with the population-induced expansion in the labour force – but only by demonstrating a much higher rate of job growth. It is also suggested that part-time jobs may have contributed much of this apparent employment growth, thereby masking a degree of unemployment.

For the future, the population of the region is forecast by the NSW Department of Urban Affairs and Planning (DUAP) to increase by a massive 41.4% between 1996 and 2021 – compared to 20.1% for the State. Some 142,790 new residents will be added to the regional population, increasing the demand for job growth. This growth is expected to be particularly heavily concentrated in the coastal areas, as indicated in the following Table 2.8. The Coastal sub-division will receive nearly 90% of the anticipated increase in regional population, so that by 2021 this area's share of the total regional population will have increased from 75% to nearly 80%.

**TABLE 2.8
POPULATION FORECASTS, AND DISTRIBUTION OF GROWTH**

	Increase in population, 1996-2021	Forecast population in 2021	Share of regional population growth	Share of 2021 regional population
Coastal	128,182	388,753	89.8%	79.6%
Western	4,435	41,700	3.1%	8.5%
Northern	10,173	57,647	7.1%	11.8%
Region	142,790	488,100	100.0%	100.0%

Source : DUAP, 1994

It will become an increasingly pressing need to find employment for the residents of the Coastal areas – where unemployment is already at higher levels than in other parts of the region. At the same time, it will also be important to ensure that the slower-growing population of the inland area also have access to appropriate employment opportunities. Without job growth, the populations of these areas will decline, with associated social and structural problems as services and other infrastructure can no longer be justified, and are withdrawn.

The figures in Table 2.8 point to a need for jobs growth of approximately 2000 per year, for the present unemployment rates to be maintained. Reduced unemployment will require greater employment development effort.

2.7.3 Priorities for Development

This profiling has suggested that the sub-divisions within the Southern RFA region have different socio-economic characteristics. The region is not uniform, but contains a wide range of economic conditions, and sources of economic growth. These differences mean that each sub-division will have different needs in terms of the level and type of economic activity required for the future. Different opportunities will tend to be appropriate to each sub-division, so that a range of opportunities, based on the forest resource, is likely to be identified.

In terms of forest based industry opportunities, priority will need to be given to new or expanded enterprises that are **based on sustainable use of the forest resource, while providing,**

- **clear social and economic benefits to the region,**
- **commercial returns for private investors in commercial enterprises based on the forest resource and**
- **justifiable expenditure by government on non-commercial but socially beneficial projects.**

3. COMMITTED FOREST BASED INDUSTRY PROJECTS

There are several investments in forest based industries which are already committed to the region and on which construction is either in final planning stages or in progress. There are two reasons why a listing of approved industries is relevant to the process of examining new opportunities.

- First, they represent some benchmarks of the type of investments which already have met commercial and regulatory criteria for use of the forest resource.
- Second, by listing them here, they are excluded from any double counting of potential additional forest based business opportunities.

Table 3.1, overleaf, summarises the “committed developments” that have been identified for the forestry and timber processing sectors of the region. It is possible that there are other projects which have not been identified by this study or communicated by proponents for reasons of commercial confidentiality. Therefore, the table should be taken as indicative of interest in the resources of the region.

The investments indicate the momentum for growth and expansion that is occurring in the regional timber industry, as this sector expands to take advantage of the competitive advantages enjoyed by Australia in the supply of sustainable wood fibre to the countries of the Asia-Pacific Rim region.

The direct employment consequences of these investments will be the addition of net employment of between 700 and 900 jobs in the region. Based on economic multipliers of around 2, for these types of activity (Margules 1995), the total employment resulting from these investments will be in the vicinity of 1500 to 2000 jobs.

However, the committed projects are not distributed evenly within the region. The majority of direct employment opportunities will be in the Western Tablelands sub-division, while the reopening of the Tablelands Sawmill at Eden shifts employment of some people from Bombala, in the Western Tablelands sub-division, to the Coastal sub-division.

**TABLE 3.1
COMMITTED PROJECTS AND SUPPORT INFRASTRUCTURE**

Location (Sub-division)	Project Identification	Comments
Western Tablelands	(a) Visy Pulp/Paper Mill (Tumut) Stage I – 150,000 tpa	Two stage investment of \$400 million, employing 600 people (expected to commence in 2000)
Western Tablelands	(b) Visy Pulp/Paper Mill (Tumut) Stage II – 450,000 tpa	
Western Tablelands	(c) Willmott Forests (Monaro) Softwood plantations	Large scale investment
Western Tablelands	(d) Softwood Development Corporation Timber Mill (Bombala)	\$50 million investment , employing 100 people (by 2001)
Western Tablelands	(e) Austral (Holbrook) – small diameter log softwood sawmill	\$19 million (opened 1998) employing 75 people
Coastal	(f) Tablelands Sawmills (Re- open sawmill, Eden)	Replacing 39 jobs lost at Bombala and Cooma
Coastal	(g) General purpose wharf at Eden	Will permit export of logs sourced from Coastal hardwood and Western Tablelands plantation forests

In section 2.3, population projections (tables 2.2 and 2.3) indicate that the Coastal sub-division will expect an addition of 128,182 to its population between 1996 and 2021. Compared with the Western Tablelands sub-division (growth 4,435) and Northern Tablelands sub-division (growth 10,173) there is a need for employment generated by new projects to reflect that Coastal population growth.

Section 2.5 shows that, if current participation rates are maintained, the anticipated population growth in the region means that some 64,000 new jobs (approximately 2,500 jobs per year) must be created in all areas of economic activity between 1996 and 2021, with 2,000 of those required for new employment in the Coastal sub-division.

Conclusion

At the population growth rates projected for the region, the planned investments list in Table 3.1 represents substantial employment growth for the Western Tablelands sub-division. However, there appears to be little investment committed to the major need for new employment generating industry in the Coastal sub-division and, to a lesser extent, in the Northern Tablelands sub-division.

4. FOREST BASED EMPLOYMENT OPPORTUNITIES.

In this section, we develop the list of prospective forest based industry opportunities which can be developed in the region and document a preliminary classification of those projects by employment and investment scale.

4.1 BACKGROUND TO THE INDUSTRY OPPORTUNITIES

The Southern Regional Forest Forum workshop at Kiola on the 5th June, 1999 and subsequent consultations, listed a total of 60 individual employment opportunities into seven categories, as follows.

- 1 – Extended Timber Resources
- 2 – Extended Timber Processing
- 3 – New Uses of Timber and Residues
- 4 – Non-Timber Forest Produce
- 5 – Aboriginal & Heritage – Tourism and Education
- 6 – Forest Based Recreation
- 7 – Forest Industry Infrastructure

Since that first listing, there have been consultations with stakeholders in commercial industry, with state and federal government departments responsible for sustainable regional development and with representatives of the indigenous community. Inputs from linked projects were considered, other opportunities were added and some that were not forest-based were deleted.

Initially, the opportunities in each of those groups were assessed on the basis of the following six characteristics.

- i. Location, in terms of the three sub-divisions of the Region,
- ii. The income or market sources on which the activity will depend,
- iii. Permanent employment potential,
- iv. The scale of investment required to establish the activity,
- v. Probable ownership of the activity, public or private,
- vi. Identifiable constraints on implementing the activity.

Subsequently, those listings were discussed with members of the Southern Region Forest Forum at a further meeting which sought their feedback. Their comments were noted and incorporated in the more detailed assessment process described in this report.

4.2 PRELIMINARY LISTING OF INDUSTRY OPPORTUNITIES

Before a more detailed screening process is undertaken, a preliminary listing has been applied to the “long list” of identified employment opportunities. The sixty opportunities have been sorted into categories which indicate the relative employment impact of the projects and the scale (and likely source) of investment in those projects. Position in each category does NOT denote priority within the category. The system for setting priorities is described in Section 5 of the report. For the purpose of this preliminary listing, the following employment and investment categories have been used.

4.2.1 Employment Categories

These differentiate between three groups of enterprises - those with large workforces, traditional “small to medium enterprises” (SMEs) whose needs are well documented, and enterprises with workforces less than 10 permanent employees, typifying the small localised enterprises that meet family or community objectives rather than standard commercial investment or lending criteria.

The employment categories used are:

- i.) Large Scale: 100 permanent employees or more
- ii.) Small to Medium Enterprises (SMEs): 10 to 100 permanent employees
- iii.) Small workforce: Less than 10 permanent or 10-20 part-time employees

4.2.2 Investment Scale Categories

These categories are based on the funding method likely to be used to progress the opportunities and can be described broadly in terms of the size of commercial investment required. In some examples, the activity funding is unlikely to have a commercial return and, therefore, may have to rely on Government grant.

The investment scale categories used are:

- i.) Key Investment: \$5 million or greater
- ii.) Commercial Loan: \$1 million to \$5 million
- iii.) Private Loan: \$100,000 to \$1 million
- iv.) Cash or Grant: Under \$100,000

4.3 PRELIMINARY PROJECT CATEGORIES

Using these preliminary Employment and Investment Scale criteria, the following tabulations have been developed.

**TABLE 4.1. LARGE SCALE:
100 PERMANENT EMPLOYEES OR MORE**

Investment Category	Project Identification	Comments
1. Key Investment: >\$5 million	1a. New commercial hardwood plantations 1b. New commercial softwood plantations 1c. Plantations for Carbon Sink trading 2a. New sawmills (hardwood & softwood) 2c. Increased softwood chip export to Asia-Pacific rim countries.	May require initial Government funding input

This first set of Key Investments must be able to meet the requirements of a commercial investment market that applies strict Return on Investment criteria and/or cash flows in order to justify the investment. The five listed have the potential for large scale permanent employment in the region and would appear to meet the criteria for high priority proposed in section 2.7.3.

**TABLE 4.2. SMALL-TO-MEDIUM ENTERPRISES (SME):
10 TO 100 PERMANENT EMPLOYEES**

Investment Category	Project Identification	Comments
1. Key Investment: >\$5 million	1e. Forest plantation for dry-land salinity rehabilitation 1f. Plantations for effluent disposal 1h. Farm forestry – Carbon Sink trading 1k. Plantation research 2i. Veneer & Plywood mill 3a. Charcoal manufacture for silicon plant 3h. Biomass Energy generation	Government funding Local/State Government May require initial Govt. funding support FWPRDC/CSIRO LINKED PROJECT
2. Commercial Loan or Govt Grant: \$1 to \$5 million	1d. Forest plantation for biodiversity 1i. Farm forestry for dry-land salinity rehabilitation 1j. Nursery plantations & Christmas trees 2b. Increased use of mobile milling 2g. Bridge manufacturing plant 3b. Ti tree oils 3c. Specialty use turpentine 3d. Ethanol 4e. Kangaroo meat 4f. Aquaculture 6e. Forest setting for “Health Spas” 6g. “Exclusive” camp sites for experiential tourism	Government funding Government funding
3. Private Loan: \$100k-\$1 million	3e Wood briquettes 4b. Bush food 4c. Native cut flowers & foliage	
4. Cash or Grant: Under \$100,000	1g. Farm forestry – Commercial timber 3f. Firewood (Canberra market)	

Several of the projects in Table 4.2 are shown as requiring some Government funding support. Government support is required particularly for activities which are aimed at improving environmental health of the region, such as increasing biodiversity or plantations for catchment rehabilitation. Such projects can be considered as having socio-environmental objectives, rather than strictly commercial goals. However, this does not mean that commercial returns may not also be available.

Many of the projects that require commercial investments in the \$1 million to \$5 million range, are untested commercially and will require further investigation before they can be given priority.

These projects are all assessed in greater detail in Section 5 of this report.

**TABLE 4.3. SMALL WORKFORCE:
LESS THAN 10 PERMANENT OR 10-20 PART-TIME EMPLOYEES**

Investment Category	Project Identification	Comments
1. Investment: >\$5 million	NIL	
2. Commercial Loan or Govt Grant: \$1 to \$5 million	2d. Drying plant capacity increase 2e. Molding and dressing plant 2f. Timber treatment plants 5a. Heritage Centre at Moruya 5d. Koala sanctuary (Jervis Bay) 5e. Forest interpretation Centres – Yass, Batemans Bay, etc 5g. “Berry” or “Mogo” cluster development – heritage/crafts 6j. Conferences and seminars	Government funding Government funding Government funding
3. Private Loan: \$100k-\$1 million	2h. High Quality Furniture manufacture 6a. Craft market development	
4. Cash or Grant: Under \$100,000	4a. Apiary produce 4d. Seed collection 5b. Aboriginal Elders’ Cultural teaching 5c. Aboriginal eco-tours 5f. Aboriginal fisheries tours 5h. Seed collection 5i. Heritage education tours 6b. Eco-experience related to forests 6c. Car-based forest tourism 6d. “Off road” tourism in plantation forests 6f. 4WD eco-tourism 6h. Horse recreation in forests 6i. Nature trails – Mundaroo SF 6k. Forest education tours	NOTE: There are examples of the use of the Federal Government Heritage Fund for activities similar to these.

Several of the projects in Table 4.3 are shown as requiring some government funding support, particularly for activities which will increase employment for the indigenous populations or are aimed at improving environmental health of the region, such as increasing biodiversity or plantations for catchment rehabilitation. As for Table 4.2, such projects may be seen as having socio-environmental objectives, rather than strictly commercial goals. However, this does not mean that commercial returns may not also be available.

Many of the projects that require commercial investments in the \$1 million to \$5 million range will require further investigation before they can be given priority. However, the technology of the timber processing projects is well known and can be implemented on normal commercial terms, providing that market conditions are to remain favourable.

These projects are all assessed in greater detail in Section 5 of this report.

4.4 INFRASTRUCTURE SUPPORT PROJECTS

A further set of opportunities relates to the upgrading of infrastructure related to forest industry and most of those opportunities are likely to require Government funding.

The provision of transport services in support of new forests and forest uses will require a combination of Government funding for infrastructure and commercial investment in ancillary industries, such as trucks, buses and maintenance facilities.

In general, these projects will take place over the longer term, as new industry investment develops. They provide a medium level of employment during their construction stages with a fall-off of permanent employment as they mature into maintenance mode of operation. They will rely on the outcomes of State and Federal financial budgeting as part of general infrastructure upgrading.

**TABLE 4.4. SUPPORT PROJECTS
INFRASTRUCTURE FOR NEW INDUSTRIES.**

Investment Category	Project Identification	Comments
Infrastructure projects - >\$5 million	7a. Moruya Airport upgrade	State/Federal funding
	7b. Kings and Princes Highways upgrades	State/Federal roads funding
	7c. Woodlawn mine for waste disposal	State Environment Protection Agency (EPA) decision
	7d. Visy plant – infrastructure	Going ahead
	7e. Transport for new forests and uses	Commercial investment

Most of these projects are conditional upon population growth and industry development in the region and will progress at rates determined by government agencies. They have not been assessed as forest based industry opportunities for that reason.

However, they should be noted and their progress monitored as part of the management arrangements described in Section 8 of this report.

5. ESTABLISHING INDUSTRY OPPORTUNITY PRIORITIES

5.1 THE OBJECTIVES OF SETTING PRIORITIES

The allocation of “priority” to a diverse group of industry opportunities needs to address the question of “whose priority?” The priorities of any group of stakeholders are likely to differ from another, depending on what they consider to be desirable outcomes from establishing an enterprise, based on the forest resource.

This analysis does not seek to dampen entrepreneurial skill nor to limit the rights of the individual to take on business risk, provided they operate within the regulatory frameworks of Federal, State and local governments.

What the analysis aims to do is to establish an objective and transparent system of “scoring” industry opportunities that are **based on sustainable use of the forest resource, while providing,**

- clear social and economic benefits to the region,
- commercial returns for private investors in commercial enterprises based on the forest resource and
- justifiable expenditure by government on non-commercial but socially beneficial projects.

The assessment of the range of industry development opportunities, listed in section 4, must meet all of these criteria and demonstrate the degree of commercial or social contribution it will make.

In doing so, it is not sufficient to measure “commercial feasibility”, in terms of return to the investor. Size of investment does not necessarily satisfy all of the above criteria. More direct measures of the permanent employment generated and the scale of contribution to the region are more important in setting priority. These latter measures become particularly important when considering the target of 2000 new jobs each year described in the regional profile in section 2. Also, the employment and contribution criteria allow for government funding of projects and non-commercial industries which have strong employment and social contributions.

The concept of “regional good” has been addressed in the system of screening and scoring industry development opportunities.

5.2 SCREENING OF THE FOREST BASED EMPLOYMENT OPPORTUNITIES

The opportunities listed in Appendix B, groups 1 to 6, need to be screened into priority order so that the resources available to assist their implementation can be allocated to best effect. Each of those six groups have been assessed on the basis of the seven screen characteristics described below.

5.2.1 Resource Screen

The industry opportunity needs to demonstrate that it is based on an appropriate use of the current and/or future forest estate (hardwood/softwood, public/private) of the southern RFA region. In general, the resource screen recognises that a timber industry and its attendant service industries exist and that responsible regional development should favour using the resources that are already in the region, rather than seeking novel and riskier enterprises.

In that context, “appropriateness” relates strongly to the criteria proposed in section 4.1, namely,

- It is based on sustainable use of the forest resource, while
- Providing clear social and economic benefits to the region, and
- Giving commercial returns to private investors in forest based industries, or
- Representing justifiable expenditure by Government on projects with clear social benefits

To provide a realistic basis for assessment, the opportunity ,

- Requires a degree of assurance that “a resource” will be available;
- Therefore, there needs to be land, land title, legislation, to assure ongoing sustainability of the resource;
- Does not differentiate between existing and future use of forest resource; timing affects market and investment assessments; and
- Does not differentiate between owners of the resource.

5.2.2 Market Screen

The opportunity must be able to demonstrate a sustainable competitive market advantage, such that a tradeable enterprise can be developed.

- There must be clear evidence that a market does or will exist for the specific use of the resource (that evidence will include market size, rules and protocols for access, barriers to entry, logistics and ownership arrangements).
- The market can be private or public, domestic or international.
- The market may not be fully developed and may require further investment in market or product development (degree and source of investment not assessed).
- The market must be a sustainable and long-term in nature.

5.2.3 Employment Screen

The screen seeks to determine whether the project will generate permanent job numbers that would be significant at a regional level.

- How many individual jobs will be generated?
- Are the jobs full-time or part-time?
- Is the job demand constant throughout the year or seasonal?
- Are the jobs within reasonable range of existing towns or will they require new infrastructure.

However, there may be a separate range of employment opportunities which will not be required to meet commercial criteria. They need to provide a positive answer to the following question

- Are there other social or community reasons for the employment generated by the project?
- What communities are the beneficiaries of these new jobs
- Who are the proponents of these job opportunities and how will they continue to support them

5.2.4 Investor Screen

Investment categories are based on the funding method likely to be used to progress the opportunities and can be described broadly in terms of the size of commercial investment required. Each of these categories needs to be questioned as to,

- the size of investment, identified in the following tabulations:
 - Key Investment: \$5 million or greater
 - Commercial Loan: \$1 million to \$5 million
 - Private Loan: \$100,000 to \$1 million
 - Cash or Grant: Under \$100,000
- timing of the investment and knowledge/risks associated with that timing,
- if the activity funding is unlikely to have a commercial return, will it have to rely on Government grant,
- has investment been attracted to similar/comparable projects already existing, or
- are private or government investors in this venture identified and committed?

5.2.5 Scale Screen

This screen evaluates each project as an addition to an existing “base” which would expand economic activity or whether the project will generate a substantial scale in its own right.

- Scale will take into account multiplier effects for those enterprises which will generate a high degree of localised support industry
- Where the new industry opportunity simply replaces an existing industry overtaken by technology the scale effect will be small
- Industries which exhibit the capability to truly “add value” to basic materials will be assessed as having a positive scale effect.

5.2.6 Skills Screen

This screen will take a realistic look at the workforce before and after the establishment of the proposed enterprise.

- Are the skills required by this project already present in the region?
- If not, are existing skills readily transferable to existing workers?
- Will new workers need to be accommodated within the region?
- Is this enterprise likely to attract skilled workers away from existing enterprises?
- Are there competent trainers and training establishments available in the region to assist skills development?

5.2.7 Support Screen

This project can demonstrate reasons why it should be supported by Government.

- Will it make a major contribution to social objectives within the region?
- Will it assist in developing necessary infrastructure for the region?
- Does it fit within existing government policies and budgeted programs?
- Can it demonstrate that it is “revenue neutral” for Government?

5.3 SCORING METHODOLOGY

In the multi-factor scoring scheme described below, the main objective is to establish:

- **An objective scoring framework** that addresses a number of key attributes of the feasibility and economic/social contribution of the industry opportunities;
- **Reasoned relativity between projects**, whether competing for resources or not, rather than attempting to establish absolute measures on projects which range from well documented studies to highly speculative ideas;
- **Indicators** of the effects of constraints and therefore directions for possible incentives.

For each of the screening attributes, a score out of a possible 10 points will be assessed.

In general, the score will be given in even numbers, unless there is a clear case to differentiate between two close projects. Assessment and scoring will be based on the guidelines illustrated in Table 5.1.

TABLE 5.1 – PROJECT SCORING GUIDELINES

Score	Grading	Indicators
0	Nil	<i>No evidence</i> that the industry opportunity meets the screen criteria in any way
2	Very Low	<i>Virtually no evidence</i> , proposition based on imagined or emotional argument; AND/OR would require very high level of Government support; AND/OR makes virtually no major contribution to the region
4	Low	<i>Evidence based on examples</i> from other areas which have few factors in common with the region; no specific research done to apply to the region; AND/OR makes little contribution to the region
6	Partial	<i>Some basic research done</i> into feasibility of project; clear picture of likely market and profitability not available; data on which feasibility is based is open to question; Government support and facilitation is required.
8	Good	<i>Well researched project with some gaps</i> in data but not critical to establishing general feasibility; finance sources identified; appropriate skills available in region;
10	Complete	<i>Fully researched feasibility study</i> ; capable of meeting all requirements of investing source. AND/OR could progress without any Government support

In the following pages, each of the projects have been through the screening process described above to establish an initial set of priorities. The detailed assessments are set out in Appendix B and the results of that screening are tabulated below.

5.3.1 Weighting the Scores

Final ranking of scores to determine project priorities can be done by applying weighting factors, in two stages.

- Stage 1 - would be to apply weightings to each of the screening criteria, 5.7.1 to 5.7.7, above to reflect community preferences.
- Stage 2 - would be to apply weightings between industry opportunity groups, 1 to 6, to reflect preferences for enterprises which may score less well on commercial grounds but for which there are strong policy reasons for their encouragement.

This analysis has not allocated any weightings to the projects.

5.4 SUMMARY OF PRIORITIES

The following tables summarise the individual scores and overall opportunity assessment for all of the industry opportunities listed and scored individually in Appendix B. They are addressed as six major groups of similar opportunities and summarised in a final tabulation.

Highest and second highest scores in each groups are highlighted **in bold type** and the all scores of 44 or over are highlighted by **shading**. The numerical score is used in section 8 as part of the priority setting process.

TABLE 5.2 - GROUP 1 – EXTENDED TIMBER RESOURCES

Project	Screen Scores	Total Raw Score	Priority Rank
1a. New Commercial Hardwood Plantations	6,6,10,6,8,8,4	48	2
1b. New Commercial Softwood Plantations	8,8,10,8,8,8,6	56	1
1c. Plantations for Carbon Sink Trading	4,4,10,4,6,10,6	44	4
1d. Forest Plantations for Biodiversity	6,4,8,4,6,10,4	42	5
1e. Forest Plantations for Rehabilitation	6,6,8,4,4,8,4	40	6
1f. Plantations for Effluent Disposal	8,8,6,6,6,8,6	48	2
1g. Farm Forestry – Commercial Timber	8,4,4,4,4,8,4	36	8
1h. Farm Forestry – Carbon Trading	8,2,4,2,4,8,4	32	11
1i. Farm Forestry- Rehabilitation	8,4,2,4,4,8,4	34	10
1j. Nursery Plantations – Christmas Trees	8,4,6,4,6,8,4	40	6
1k. Plantation Research	8,4,4,4,4,8,4	36	8

These opportunities rate consistently high in terms of the relevance of the resource and in the availability of appropriate skills in the region. The lower scoring opportunities do not provide sufficient employment impact and many exhibit uncertainties about the market and the availability of investment funding.

TABLE 5.3 - GROUP 2 – EXTENDED TIMBER PROCESSING

Project	Screen Scores	Total Raw Score	Priority Rank
2a. New Sawmills; Adaminaby & Khancoban	6,6,8,4,6,8,8	46	4
2b. Increased Use of Mobile Milling	8,6,6,6,6,8,6	46	4
2c. Increased Softwood Chip Export – Korea	2,2,8,4,6,8,4	34	8
2d. Drying Plant capacity increase	8,8,6,6,6,8,6	48	1
2e. Molding and Dressing Plant	8,8,6,6,6,8,6	48	1
2f. Timber Treatment Plants	8,8,6,6,6,8,6	48	1
2g. Bridge Manufacturing Plant	8,8,4,6,6,8,6	46	4
2h. High Quality Furniture Manufacture	6,8,4,4,4,4,6	36	7
2i. Veneer and Plywood Mill	6,8,6,4,2,2,2	30	9

The higher scoring opportunities are extensions of existing commercial activities and several are under active promotion as commercial projects for the region. The lower scoring opportunities have differing low scoring elements due to specific questions about their feasibility. Those reasons are outlined in Appendix B.

TABLE 5.4 - GROUP 3 – NEW USES OF TIMBER AND RESIDUES

Project	Screen Scores	Total Raw Score	Priority Rank
3a. Charcoal Manufacture	4,4,2,4,4,6,4	28	3
3b. Ti Tree Oils	2,4,4,4,4,6,4	28	3
3c. Specialty Use Turpentines	2,2,2,4,4,4,4	22	6
3d. Ethanol	6,2,2,2,2,4,2	20	7
3e. Wood Briquettes	6,4,4,4,4,6,4	32	2
3f. Firewood (Canberra market)	8,4,4,4,4,6,6	36	1
3g. Biomass Energy Generation.	6,4,4,2,2,4,4	26	5

This group has consistently lower scores due to the more speculative nature of the opportunities. In many cases, not enough is known about the technology involved, the markets for the product or the investor interest. The employment impact is small in most cases.

TABLE 5.5 - GROUP 4 – NON TIMBER FOREST PRODUCE

Project	Screen Scores	Total Raw Score	Priority Rank
4a. Apiary Produce	10,8,4,4,4,4,6	40	3
4b. Bush Foods	10,2,4,4,2,4,6	32	5
4c. Native cut flowers and foliage	6,6,6,6,6,8,6	44	1
4d. Seed Collection	6,4,4,6,6,8,6	38	4
4e. Kangaroo Meat	2,4,4,4,4,8,4	30	6
4f. Aquaculture	6,8,6,6,6,8,6	42	2

The three higher scoring opportunities serve established markets and are the subject of Rural Industries Research and Development Corporation (RIRDC) business feasibility studies. The markets are highly competitive and the native flower and foliage business is predominantly drawn from cultivated, rather than natural growth. Use of natural growth within the forest will have to be negotiated with government before a business can be based on that resource.

TABLE 5.6 - GROUP 5 – ABORIGINAL AND HERITAGE – TOURISM AND EDUCATION

Project	Screen Scores	Total Raw Score	Priority Rank
5a. Heritage Centre at Moruya	8,2,6,4,4,8,4	36	3
5b. Aboriginal Elders Cultural Teaching	8,2,6,4,4,8,4	36	3
5c. Aboriginal Eco-tours	8,2,6,4,4,8,4	36	3
5d. Koala Sanctuary (Jervis Bay)	8,2,4,6,4,8,4	36	3
5e. Forest Interpretation Centres	8,2,6,4,4,8,4	36	3
5f. Aboriginal Fisheries Eco-tours	6,2,6,4,4,8,4	34	9
5g. Berry /Mogo Cluster – craft centres	8,2,6,6,4,8,4	38	2
5h. Seed Collection	8,4,4,6,4,8,6	40	1
5i. Heritage Education Tours	8,2,6,4,4,8,4	36	3

The activities listed in Group 5 are individual activities which will attract only limited tourist attention unless they can be “packaged” as an attractive and/or unusual tourism experience. There is a need to develop a cohesive approach between all indigenous/heritage groups to provide a well researched and well packaged tourism attraction and a well-managed tourism experience. The lack of clear evidence or knowledge of the identity or size of the market is the dominant shortcoming of this group of opportunities.

TABLE 5.7 - GROUP 6 – FOREST BASED RECREATION

Project	Screen Scores	Total Raw Score	Priority Rank
6a. Craft Market Development	8,4,6,6,4,8,4	40	1
6b. Eco-experience Related to Forest	6,4,4,6,6,8,6	40	1
6c. Car-based Forest Tourism	6,2,4,4,4,8,6	34	9
6d. “Off road” tourism in Plantation Forests	6,2,4,4,6,8,6	36	5
6e. Forest setting for “Health Spas”	4,4,6,4,8,6,6	38	3
6f. 4WD Eco-tourism	4,4,4,4,4,6,6	32	11
6g. “Exclusive” camp sites for young professional adventure market	4,4,6,4,8,6,6	38	3
6h. Horse Recreation in Forests	4,4,4,4,4,8,6	34	9
6i. Development of Nature Trails	6,6,4,4,4,6,6	36	5
6j. Conferences and Seminars	4,2,6,6,8,4,6	36	5
6k. Forest Education Tours	8,4,6,4,4,4,6	36	5

Many of the activities proposed in this are group are “add-ons” to existing tourism operations in the region and represent little addition to employment in the region. Throughout the group, the degree of market research or knowledge is limited. In the cases of 6(e), 6(g) and 6(j) the scale of investment and employment is significant but the opportunities are still speculative in their nature. They require considerable research before a commercial proposition can be developed.

5.4.1 Summary of Screening Scores, by Major Groupings

Table 5.8, overleaf summarises the average scores for each group, by screening element and gives overall averages for each screening element and totals for each group. The **bold scores** are those which average 6 or over and therefore represent score groupings which tend towards the more feasible or well researched end of the assessment scale.

As seen in the individual tables above, the scores within groups also vary but the summary table gives some indication, through the lower scores, as to where there are systemic constraints to implementation.

These constraints and incentives to overcome those constraints, are discussed in the following sections of the report.

The shaded cells in the table overleaf contain average scores below 5 (out of a possible 10) and indicate areas of either consistently low scores or the contribution of individual industry opportunities which have very low scores.

TABLE 5.8 - SUMMARY TABLE – INDUSTRY OPPORTUNITY SCORING

	Resource Screen	Market Screen	Employment Screen	Investor Screen	Scale Screen	Skills Screen	Support Screen	Total Score
Group 1 – Extended Timber Resources	7.1	4.9	6.6	4.6	5.5	8.4	4.6	41.5
Group 2 – Extended Timber Processing	6.7	6.9	6.0	5.1	5.3	6.9	5.6	42.4
Group 3 – New Uses for Timber and Residues	4.9	3.4	3.1	3.4	3.4	5.1	4.0	27.4
Group 4 Non Timber Forest Products	6.7	5.3	4.7	5.0	4.7	6.7	5.7	38.7
Group 5 – Aboriginal and Heritage Tourism	7.8	2.2	5.6	4.7	4.0	8.0	4.2	36.4
Group 6 - Forest Based Recreation	5.5	3.6	4.9	4.6	5.3	6.6	5.8	36.2
Overall Average Screen Score	6.4	4.3	5.1	4.6	4.8	6.9	5.1	37.1

Of note are the following patterns.

By Score Element (Column)

- In general, the Resource Use screen recognises that a timber industry and its attendant service industries exist and that responsible regional development favours using the resources that are already in the region, rather than seeking novel and riskier enterprises. There are some questions about the appropriateness of some of the proposed new uses in Group 3 and in the use of the forest resource for tourism and recreation.
- Market knowledge is consistently low, with the exception of the Group 2 projects, which are extensions of existing technology. The Group 1 projects have good market knowledge about existing commercial uses but uncertainties about protocols for investment in plantations for carbon sinks, biodiversity and rehabilitation produce lower scores in that group. This knowledge reflects the high level of employment in forest and timber products industries illustrated in the profile of the Southern CRA region.
- The Employment screen highlights the impact of larger employment opportunities. Groups 1 and 2 represent industries with larger, full-time workforces, while Groups 3 consists of small employment extensions to existing industries and Group 4 are more “cottage industry” enterprises with small workforces.
- The Investor screen scores reflect the lack of market knowledge and therefore, the inability to formalise funding from either private or public sector sources.
- The low scores in the Scale column indicate that there may be industry opportunities which have a low overall contribution to the regional economy. The regional profile indicates that many of the service sectors are small enterprises with low “scale” impacts on the economy. However, the wood products sector provides a large component of the bigger employers, with forestry activities providing some smaller scale employers.
- The Skills screen indicates that the general levels of skill in the region are appropriate to the industry opportunities. As expected, they are slightly lower where new uses for timber are proposed.
- The Support screen highlights those projects that will need government support to become sustainable activities; Group 1 requires support for the development of rehabilitation and biodiversity plantations, Group 3 requires more research and development and the Group 5 opportunities are likely to require some seed funding before they become self-sustaining.

By Opportunity Groupings (Rows)

- As noted above, several Group 1 projects have good market knowledge about existing commercial uses; however, uncertainties about investment in plantations for carbon sinks, biodiversity and rehabilitation produce the lower scores.
- Group 2 opportunities tend to be extensions of existing timber product industries of the region and are likely to be implemented as commercially attractive ventures; forest and forest product industries have multipliers of approximately 2 (Margules 1995) and satisfactory scale impacts.
- Group 3 projects appear to be based on technologies that are more speculative in nature. They do not have firm investor backing and may need Government support. They are appropriate to the skills of the regional population
- Group 4 opportunities exist in some well established domestic and international markets; those markets are highly competitive and present some barriers to entry. The processing and value-adding elements of these opportunities are consistent with the existing industry structure and skills of the region
- Group 5 opportunities need to be packaged to attract a specific market. Individually, they do not provide major employment or economic scale benefits for the region. They require a cohesive approach to develop the full potential of these opportunities. They represent a major opportunity for indigenous employment in the region.
- The Group 6 opportunities are either speculative large investments or additions to existing tourism operations. The more speculative opportunities need more research before they can be commercialised. However, they are important as a means of improving the tourism image and turnover of the region.

6. CONSTRAINTS

6.1 TYPES OF CONSTRAINT

Through the objective screening process, described in this report, it became clear that there were a number of constraints which are likely to restrict the potential of some of the identified development opportunities.

Many of those constraints appear as low scores in an individual opportunity assessment, but of greater significance is the situation where many opportunities exhibit consistent low scores in the same scoring element. When that occurs, there is a clear indication that there are constraints which are systemic, rather than individualistic and the score gives some indication of the degree of impact of the constraint.

The range of constraints which act to limit the attractiveness of some of the identified development opportunities can be summarised as :

6.1.1 Information constraints

This relates to a lack of appropriate information in areas such as:

Markets

Many opportunities are constrained at present because not enough is known about the potential market for the products involved. For some opportunities, a market does not exist as yet, or may only exist at a small level and is virtually untested. For others, markets may exist but a major promotional campaign will be required to link the product/service with the market, and to establish a “name” or “edge” against established competition.

Market information appears to be a constraint in relation to:

- the price at which products can be sold or investment funding provided, for example, Group 1 opportunities requiring investment in plantations for carbon sinks, biodiversity and rehabilitation.
- the size of the available market (demand), for example, investments in major infrastructure for tourism (indigenous attractions, conference centres)
- both price and demand, for example, bush foods, biomass energy and wood briquettes.

Skills/training

An opportunity cannot progress unless adequate skills are available in the local workforce. A lack of local training facilities can act as a related constraint, creating difficulties for local people to develop the skills required in order to exploit some of the identified development opportunities.

In general, the trade-related workforce skills of the region appear to be appropriate for most of the industry opportunities that have been assessed.

Managerial and commercial skills can act as an even greater constraint than craft and technical skills. Lack of managerial skills becomes a constraint imposed by small business investors, who must feel comfortable that the commercial potential of the prospective business will be realised by competent management.

The ability of indigenous people to operate commercial enterprises is regarded as one such constraint. Other sectors of the community will also require managerial skills, to move successfully from an employee position to an entrepreneurial role, to be self-employed in a small business

One example of constraint appears to exist in the need for specific craft skills and craft training skills for opportunities such as furniture manufacture. Training will be needed to produce a range of crafts for sale in tourist outlets and centres, to process and present bush foods and to provide the levels of customer service required by international standard Spas and Conference Centres.

Technology

It is recognised that markets may not exist as yet for some of the identified development opportunities. Equally, adequate technology may not exist as yet, which can prove just as much of an impediment to practical process development and the attraction of venture capital. Areas acting as technological constraint which have been identified include:

- perceived low rates of tree growth, for investors in hardwood plantations
- processing limitations (e.g., charcoal)
- competing processes (e.g. ethanol from grains and other residues)
- unknown capabilities (e.g. the use of native plants for pharmaceuticals)
- proving quality (e.g., special purpose turpentines)

Third party decisions required

A critical area of information constraint involves the unknown outcome of decisions which are yet to be made by third parties, and which can have a major influence on some of the identified development opportunities. Chief amongst such decision is the outcome of the Kyoto conference. Protocols are yet to be ratified, which will influence items such as eligibility for carbon credits, and thus the potential establishment of plantations.

Other third party decisions include,

- government decisions about the funding of large scale rehabilitation plantings,
- the land use allocation decisions that will be made in the final RFA determination for the region,
- access to National Parks, native State Forests and commercial plantations for commercial activities such as apiary, flower and foliage gathering, and
- access to National Parks, native State Forests and commercial plantations for indigenous, recreational or educational tourism.

6.1.2 Structural constraints

While information is available, some new approaches will be required to work around these constraints. In some cases, the successful implementation of an identified development opportunity will require structural change and adjustment, including changes to regulations.

Scale

The question of adequate scale is common to many of the identified development opportunities. This is a frequently observed problem in making the shift from a local operation to one which can access national (and international) markets. The development of an apiary industry from a self-employed level to an international operation employing others is one example which has been identified. Another would be

the establishment of a native flower industry, on a commercial basis, from the collection of plants from forested areas.

Other scale constraints involve the need for :

- sufficient volume to establish viable processing operation (e.g. farm forestry, sawmill establishment)
- sufficient volume to establish attractive level of carbon credits for sale, particularly in the aggregation of farm forests
- cost efficiencies to be derived which will permit operations to be market competitive

Investment

A lack of capital is a common constraint to the development of a new enterprise, and particularly where land acquisition is necessary, or investment in plant and equipment for processing, packaging, etc. The primary sector (agriculture and forestry) also has limited access to funding, because of the long lead time inherent in natural processes before full production can be attained. This inability to generate quick returns makes such investment unattractive for institutional investors who need to demonstrate high returns on an annual basis, to attract deposits in the face of competition from alternative investment opportunities.

Investment is required in research and development activities (e.g., medicinal plants). Technological constraints will also require extensive research, which in turn leads to a need for investment. For some of the identified development opportunities, public funding will be required (e.g. the Heritage Centre proposal).

Many of the identified development opportunities could be attractive to rurally based individuals and companies– but require investment to be made in plant and equipment (and land purchase) at a level which is beyond the means of individuals and small companies. In the absence of other assets to offer as collateral, commercial loans will not be available for unproven ventures.

Parochialism

In activities which involve communities bidding for public funds, or seeking to fund commercial businesses, intra-regional competition can become a substantial constraint. This type of commercial parochialism stands in the way of developing the full potential of regional industries which require,

- product or service volume to achieve economies of scale that allow competition with enterprises outside the region (bush foods, native flowers and foliage will need this type of volume)
- “packaging” of many services and attractions to achieve recognition of the full potential of the region (Indigenous and heritage tourism will need to ensure that it can exploit fully the potential of the region as a comprehensive experience of a region with a rich history)
- economies of scale in promotion of regional attractions and services and in harnessing skills in the region (an example from the Hunter Valley is Hunternet which demonstrates how local industry services can be combined into competent and competitive skill groups)

Infrastructure

In addition to this financial infrastructure, most of the identified development opportunities require physical infrastructure such as land and buildings to be available, or industrial support facilities such as transport, energy, and communications. The absence of any or all of these can act as constraints to development.

Land availability (at an appropriate price) can limit the ability to establish commercial plantations. Outstanding Aboriginal land claims in the region could be seen to be a constraint to planning major plantation development.

Labour costs can act to restrict the commercial viability of some enterprises, in preventing new entrants to an industry from being adequately competitive in the market. As already outlined, a lack of appropriate skills can also provide a labour constraint. Export facilities may also be lacking, to enable the loading of good at a cost competitive rate to ensure market success. It is noted that the apparent commitment to develop a multi-purpose wharf at Eden (on the southern side of Twofold Bay) could provide an export facility that would be appropriate for several of the opportunities identified.

A final type of infrastructural constraint is the need to provide protection of intellectual/cultural property. This need may act as a particular impediment in the development of tourism and cultural activities based on the Aboriginal heritage of the area, and on the development of craft products for sale.

Regulatory and institutional

A major grouping of constraints which may act to restrict some of the identified development opportunities involve existing regulations and other institutional arrangements. These include :

- controls over land clearing, particularly involving areas of native vegetation
- restrictions on transport access to some road links (especially when related to private plantation development)
- environmental controls on air pollution which could affect timber usage as firewood in the ACT
- access to conservation reserves, affecting vehicle (and horse) use for tourism purposes in some areas
- restrictions on adequate levels of security over resource access, which is required to support investment decisions (e.g. for value-added timber processing)
- regulations relating to chemical use, and environmental controls, for activities such as timber treatment
- regulations governing the use of timber in relation to structural and fire hazard standard (e.g. Roads and Traffic Authority (RTA) bridge construction)
- Hazard Analysis and Critical Control Point (HACCP) quality requirements for food
- licencing (native flowers, seeds, bush tucker, kangaroo meat) for harvesting and export
- waterways & food standards (aquaculture)

6.2 CONSTRAINTS ON INDUSTRY OPPORTUNITIES

6.2.1 Constraints on Groups of Opportunities

The impact of many of these constraints can be seen in each of the industry opportunity groupings and are summarised for the six groups, as follows.

Group 1 – Extended Timber Resources

- Opportunities intended to provide physical timber do not have market constraints, as processing capacity to utilise this timber already exist in the region. There are however substantial **Market constraints** on the development of new plantation forests for carbon sinks, rehabilitation and biodiversity. The existence of a market requires it to have clear rules and protocols for determining the interfaces with customers and the pricing mechanisms that will allow the market to operate. The rules and protocols are not determined for any of these three plantation opportunities and until they are clearly determined, the absence of market rules will constrain decisions on location, scale, investment and ownership.

- **Third party decisions** constrain this group in the same plantation investments described above. Protocols for Carbon Credits will be decided internationally and the Federal Government may also place some constraints on trading Carbon Credits internationally. Salt credits for rehabilitation and rules for trading those credits will involve State and Federal Governments, as will rules and funding for biodiversity planting.
- **Scale of plantation** will depend on the pricing and trading rules, but scale may prove to be a constraint if the size and location of these different types of plantation involves substantial competition for land with alternative economic uses. Scale will also be a constraint in the aggregation of farm forest plantations to produce sufficient volume to trade commercially in any credit systems, based on growth of timber.
- **Investment** will remain a constraint until all the rules and protocols can be finalised and price/demand relationships established. While there appears to be interest in the concept of plantation investment, there will only be speculative investment activity until the structure and operations of the market are clarified.
- There may also be some **Resource constraints** operating, in finding suitable land for the establishment of plantations. These constraints may relate to climatic/topographical factors, and to land tenure or regulatory factors.

Group 2 – Extended Timber Processing

In this group, there are six projects that appear to have no major constraints and should be able to progress towards commercial implementation. The major reasons for this are the existence of current processing capacity, which will enable new projects to be introduced fairly easily – this is entirely consistent with the theory of effective regional development, and with regional development objectives already set for the region. Three other projects have constraints which raise questions about their long term feasibility.

- Project 2c, Softwood Chip Export to Korea, raises questions about whether it is an appropriate use of the **forest resource**. In the longer term, it would be preferable to utilise an existing resource in a domestic value-adding (further processing) capacity on-shore. While woodchip exports would provide a valuable market for early thinnings from plantations, it may prove difficult to maintain volumes, given the demand for pulpwood expected from existing processing capacity in the region.
- Project 2c also suffers a constraint with regard to the Korean **market** which is established, but influenced by economic conditions in Korea – and by the volatile situation throughout Asia. Moreover, it appears that there are at present no chip unloading facilities in Korea, so that this opportunity cannot be immediately implemented.
- Project 2h, High Quality Furniture Manufacture, is severely constrained by the **shortage of craft skills** of trained furniture joiners in the South Eastern and Illawarra economic development regions.
- Coupled with the shortage of skills, **investment incentives** would be required for initial start-up; the project may be eligible for Regional Business development funding. Eurobodalla Shire is seeking funding to employ an Industry Development Manager to progress a woodworking industry centre.
- Project 2i, Veneer and Plywood Mill, has been the subject of a separate feasibility study which concluded that there is a business structure and volume constraint that makes the project commercially unattractive. There is a good quality resource available (dependent on RFA outcomes) but a limited potential volume. This suggests that the best option is to supply the existing plywood mill (Wagga) from the inland areas, develop a composite LVL mill, based on softwood resource, and to sell coastal veneer logs to existing plywood producers (northern NSW and interstate).

Group 3 – New Uses of Timber and Residues

Group 3 projects appear to be based on technologies that are more speculative in nature. They do not have firm investor backing and may need Government support. They are appropriate to the skills of the regional population. Their major constraints are as follows.

- **Resource constraints** in Project 3a, Charcoal Manufacture has uncertainty over resource and market. If both these can be firmed, then reasonable prospects for effective use of what may otherwise be forest/milling residues. Project 3b, Ti Tree Oils has questions raised by Rural Industry Research and Development Corporation (RIRDC) about the suitability of the region, compared with northern coastal regions where the existing Ti Tree Oils industry operates.
- **Market constraints** impact on projects 3a, 3b, 3c and 3d and the Linked Project on Biomass Energy concludes that the market prices necessary for commercial feasibility would not be paid by the market under current pricing regimes.
- There are **Employment constraints** as the opportunities appear uncertain and are probably limited in the additional employment that they offer. They could provide a useful market diversification for existing mill operators where they can identify a firm market for the product.
- Overall, the **Technology constraints** imposed on these projects, stem from unproved technologies or from those that cannot deliver promise of market acceptance. In most cases the scale effect is small, making only a marginal contribution to the regional economy. These projects do not appear to have the potential (at present) of making the contribution to regional employment expansion that is at the forefront of development strategies for the region.

Group 4 – Non Timber Forest Produce

There are three of the higher scoring opportunities in this group that serve well established markets and are the subject of RIRDC business feasibility studies.

- **Resource constraints** exist in the 4e, Kangaroo Meat, which relies on culling of kangaroos in forests by indigenous labour. Access to the resource and, therefore, an assured supply will limit the feasibility of this project.
- **Market constraints** affect projects 4b, Bush Foods, and, to a lesser extent, 4d, Seed Collection. It should be noted that, while the native flower market is well defined, the markets are highly competitive and the native flower and foliage business is predominantly drawn from cultivated, rather than natural growth.
- Use of natural growth from within the forest will have to be negotiated with Government before a business can be based on that resource. As a result, there is some possibility of project 4c, Native Cut Flowers, may experience **Regulatory or institutional constraints**.
- Bush foods may also experience **Scale constraints** as the increasing hygiene controls on the sale of foodstuffs usually require investment in modern cooking and packaging equipment. If bush foods are to be consumed in local restaurants, rather than offered for retail sale, the constraint may not become important.

Group 5 – Aboriginal and Heritage – Tourism and Education

The activities listed in Group 5 are individual activities which will attract only limited tourist attention unless they can be “packaged” as an attractive and/or unusual tourism experience.

- There is a **Market constraint** throughout this group of opportunities, manifesting itself as a lack of clear evidence or knowledge of the identity or size of the market. It is the dominant shortcoming of this group of opportunities.
- There is a need to develop a cohesive approach between all indigenous/heritage groups to provide a well-researched and well-packaged tourism attraction and a well-managed tourism experience. At present, there is a level of competition for resources and funding by local indigenous groups, constituting a **Parochialism constraint**.
- The combined effect of poor market information and uncoordinated marketing effort **constrains access to commercial investment** and will limit access to Government funding, which, increasingly, is looking for well founded business plans to justify public seed funding of community enterprises.

Group 6 – Forest Based Recreation

Many of the activities proposed in this are group are “add-ons” to existing tourism operations in the region and represent little addition to employment in the region.

- The use of the forest resource as tourism and conference venues raises questions about the appropriateness of those uses, particularly where new major construction is proposed or where the physical impact of “unguided” tourism can damage fragile eco-systems. There may be **Regulatory or institutional constraints** which have to be negotiated before these projects can proceed.
- The existence of a question over permission to enter, build or operate a commercial enterprise in the forest resource will constitute an **Investment constraint** until operating and management rules are clarified.
- Throughout the group, the degree of market research or knowledge is limited and represent a **Market constraint**. In the cases of 6(e), 6(g) and 6(j), the scale of investment and employment is significant but the opportunities are still speculative in their nature. They require considerable research before a commercial proposition can be developed.

6.2.2 Overall Constraints on Entrepreneurial Development

It is important to note that many small enterprises are undertaken without definitive research into markets, professionally documented market strategies, business plans or cash flow projections. The enterprise starts and operates due to the entrepreneurial skills of the proprietor. In many cases, the ability of the proponent to recognise an opportunity and to move quickly to exploit it, is the factor which differentiates between a successful enterprise and one which fails.

Therefore, a too bureaucratic or too analytical approach to promoting and supporting new enterprises can work to the detriment of those enterprises and to the employment opportunities they present.

This analysis does not seek to dampen entrepreneurial skill nor to limit the rights of the individual to take on business risk, provided they operate within the regulatory frameworks of Federal, State and local Governments.

The management of industry opportunities so that they can realise their full economic, social and environmental potential, within the existing regulatory and institutional frameworks, is discussed in Section 8 of this report.

7. INCENTIVES

7.1 BACKGROUND

Some of the development opportunities appear to require some form of incentive before any activity can be expected to occur. However, the most important consideration in structuring any set of incentives for industry development in the region is **the purpose of the incentive**.

If the purpose can be established and agreed with the participants, the type of incentive and its effectiveness can be developed, monitored and managed.

It is clear from the priority scoring patterns in Section 4, that some of the identified development opportunities will require incentives, not only simply to address the various constraints discussed, but generally to:

- improve the attractiveness to investors
- improve viability
- reduce risk
- encourage decision making
- remove structural impediments.

Some incentives may be required for some of the identified development opportunities to be financially viable, especially in early stages. The purpose and nature of some of the incentives which could be provided are briefly outlined. It should be noted that some of these incentives are already available, while others will require some intervention from Government.

If such intervention is to be made, then there must be other (non-financial) returns available which can be considered by Government to represent a “public good”, and therefore as justifying the incentive.

7.1.1 Incentive Types

The principal types of incentive available to industries and community groups are as follows:

Financial Incentives

The most direct form of incentive is a financial one. This type of incentive acts to :

- improve returns, either as an income or cost subsidy
- provide a required service at reduced cost
- provide a low-cost loan, or direct grant, to reduce some of the capital barriers to a new business (such as land purchase or plantation establishment) which can become significant when there are no returns during the first few years

i) Available sources

Some financial incentives are already available from Government programs. Some of these are associated with the RFA process, such as the Forest Industry Structural Adjustment Program (FISAP) which can be used to assist business restructuring activities such as the construction of new processing facilities for timber businesses.

Other financial incentives are offered by the NSW State and the Commonwealth Governments, as part of a range of industry start-up packages. These incentives can include :

- free advice from the Business Enterprise Centres operated under NSW State Government funding
- grants to assist in meeting relocation and feasibility study expenses
- payroll tax rebates, and subsidised provision of some infrastructure
- assistance with market development expenses, particularly for export ventures.

ii) Other financial incentives required

Some of the identified development opportunities will require additional incentives if they are to be sufficiently viable to be attractive to investors. It will be a matter for Governments at all levels to decide whether the regional development outcomes are sufficient to justify such expenditure. Careful investigation will also be required, to ensure that the project in question would in fact be viable in the longer term, if such assistance were to be provided.

It may be more appropriate to provide assistance with measures designed to remove some of the information constraints identified, rather than providing direct grants. For example, funds could be provided for use in market research, and other projects relating to establishing markets and market demand, and for promotion. The outputs obtained (reports and other information) would then be available for others to use, so that a return could be obtained in the longer term, even if the original “consumer” of such information were to prove unsuccessful as a business venture.

Education/training Incentives

The lack of adequate skills has been identified as one of the factors with potential to constrain some of the identified development opportunities. A non-financial incentive which could be offered could involve the provision of assistance with training – not just to the company/operation in question, but to the general community.

Organisations such as Technical and Further Education (TAFE) and the Business Enterprise Centre (BEC) of the area already provide training to the community in business skills and in specific technical areas. For example, the Tumut campus of the Riverina Institute of TAFE has set up all the equipment required to develop specialised skills in timber milling activities, and has contracted with the Forest Industry Council to provide training to the industry.

Particular courses could be developed by training providers within the region, to deliver commercial management skills to special interest groups such as Aboriginal communities. This would resolve a major constraint identified in the development of opportunities based on the cultural heritage of indigenous peoples.

Infrastructure provision and support

Overall public sector planning for the region could provide incentives via the provision of required infrastructure. Physical infrastructure such as the general purpose wharf proposal at Eden, water supply schemes, and roading in forest areas can all act as incentives to particular development opportunities. The upgrading proposed for certain regional airports is also a part of incentives for some developments.

Research and Development Support

Action to deliver Research and Development (R&D) activities would also act to reduce technology constraints. This incentive may be financial, or could be via the planning of activities to be undertaken by relevant bodies in the region, such as SFNSW and CSIRO, as well as tertiary education centres.

Review of regulatory and institutional constraints

The discussion of constraints has revealed the potential of certain regulations and other institutional arrangements to limit some of the identified development opportunities. A review of regulatory requirements and institutional arrangements could be conducted, which could provide some incentives to development if changes were made such that the identified constraints were minimised.

7.2 THE PURPOSE OF INCENTIVES

The principal reasons for incentives to be applied to the industry opportunities will be to address the constraints identified through the priority assessment. The incentives will have three main directions, namely:

- i.) to improve the commercial feasibility of projects with high employment and economic scale potential;
- ii.) to provide incentives for communities to work cooperatively to research, promote or operate businesses to become more effective competitively; and
- iii.) to promote effective research of markets and technologies for opportunities whose potential and funding is constrained by lack of information.

Where an incentive provides all three of those effects, it should be seen as cost effective and can be considered by Government as representing a “public good”.

7.2.1 Proposed Incentives

If we apply the above approach to the six main groupings of opportunities and their score profiles summarised in Section 4, we can identify some clear incentives and assistance programs which will improve the probability of those opportunities becoming workable enterprises or community activities.

Group 1 – Extended Timber Resources

- i.) The main needs for additional inputs to raise “low scoring” opportunities in this group relate to clarification of the revenue generating principles, the plantation sizes required and land location and availability. The identification of and development of a “potential investors” group will allow governments to start to encourage investors through progressive development of information streams and continual opportunity assessment.

As this group offers high potential for additional, long term employment, the development of an investors information program represents a low cost means of maintaining interest in and movement towards specialised plantation development.

- ii.) The first two opportunities, Commercial Hardwood Plantations and Commercial Softwood Plantations appear to be commercially based, with the proviso that “patient money” for such investments can be found. In that case, they should be able to proceed without Government intervention. However, the investment of “more patient money” in longer growing hardwood may need some underwritten assurances from Government that such plantations will be quarantined from any future logging constraints, subject to good forest management practices. Other incentives could involve attention to regulatory constraints over land use and access – it is expected that the Private Plantations Taskforce convened by the NSW Premier’s Department will address this need.
- iii.) Farm Forestry for commercial timber has the necessary title and planning legislation enacted by the State Government and requires some “championing” at regional level to start major planting activity. Some financial incentives may be made “in kind” by providing low-cost or no-cost seedlings.

Group 2 – Extended Timber Processing

- i.) Group 2 opportunities contain a number of relatively high scoring opportunities. Those higher scoring opportunities are extensions of existing commercial activities and several are under active promotion as commercial projects for the region.

It is unlikely that they require any incentive to proceed other than reasonable guarantees of the availability of supply of appropriate and competitively priced timber.

- ii.) The lower scoring opportunities have differing low scoring elements due to specific questions about their feasibility. Those reasons are outlined in Appendix B and can be summarised as follows.
 - 2(c), Softwood Chip Export to Korea is seen as an inappropriate use of the resource and the Korean market appears to exhibit a high degree of instability. The project should be seen as low priority.
 - 2(h), High Quality Furniture Manufacture has questions about the availability of skills and the degree of investment that is appropriate. It is being promoted by Eurobodalla Shire who seek funding to establish a woodworking industry centre which may be eligible for regional industry funding. Support for that funding application appears to be appropriate to determine the commercial feasibility of the opportunity.
 - 2(i), Veneer and Plywood Mill has been the subject of a separate feasibility study which raises questions about the size of investment required and the availability of sufficient resource to supply the scale of operation needed to be competitive.

Group 3 – New Uses of Timber and Residues

- i.) This group has consistently lower scores due to the more speculative nature of the opportunities. In many cases, not enough is known about the technology involved, the markets for the product or the investor interest. The employment impact is small in most cases.

They do not have firm investor backing and may need Government support as the incentive to pursue further research.

However, the Rural Industry Research and Development Corporation (RIRDC) does not recommend the region as an appropriate location for Ti Tree Oil industry, compared with the better established and faster growing stocks of the NSW north coast. The separate feasibility study of bio-mass energy found it to not be commercially viable.

- ii.) State Forests of NSW have been working with local indigenous groups to develop feasibility studies and funding submissions for opportunity 3(f), Firewood (Canberra market), which is the highest scoring of the group. Some regional industry funding may provide a useful incentive to establish this industry.

Group 4 – Non Timber Forest Produce

There are three higher scoring opportunities in this group that serve well established markets and are the subject of RIRDC business feasibility studies. Those opportunities are discussed below.

- i.) 4(c), Native Cut Flowers and Foliage will be supplying markets which are highly competitive. The native flower and foliage business is predominantly drawn from cultivated, rather than natural growth. Use of natural growth within the forest will have to be negotiated with Government before a business can be based on that resource. These comments may apply also to 4(d) Seed Collection.

Operation of a native flower and foliage business by a local indigenous community is likely to have access to financial and training support incentives and be granted access to traditional areas of the forest for native flora. This type of incentive may provide a real and promotional competitive advantage over cultivated native flora producers.

- ii.) 4(a), Apiary Produce represents an addition to an established industry which utilises forest resources throughout Australia. Expansion of the industry is likely to require greater access to National Parks and to conservation areas within remaining areas of State forests. Recent analyses conducted by the Australian Beekeeping Industry (“The Economic value and Environmental Impact of the Australian Beekeeping Industry”, Feb 1998,) have concluded that there is no reason to exclude managed colonies of honey bees from conservation areas, on ecological grounds.

If that access is to be granted as an incentive to expand the industry, there are likely to be licensing and management arrangements to assure the character of the resource is maintained.

- iii.) 4(f), Aquaculture is not strictly a “forest based” industry but may assist in proving rehabilitation effectiveness. RIRDC does not identify the coastal subdivision as target area for aquaculture, but its studies cover a wide range of aquatic species and includes abalone, Eels, Marron and Yabbies.

The establishment of a southern coastal aquaculture industry will need a greater amount of research and advice from RIRDC. Operation of an aquaculture business by a local indigenous community is likely to have access to financial and training support incentives and be granted access to traditional areas of the forest for rehabilitation and management of rivers and streams.

iv.) 4(b), Bush Foods. The RIRDC Handbook on New Rural Industries gives four key points for the development of a bush food industry based on cultivation. They are:

- Develop safe food standards and practices
- Improve industry education, promotion and information
- Improve production efficiencies and develop sustainable production systems
- Identify specific market opportunities to maximise industry profitability.

Incentives available for establishing such businesses are most likely to come from regional industry assistance funding. RIRDC advice on the industry will be needed to understand feasibility of any businesses based on gathering of natural bush food rather than on cultivation.

It is noted that the Native Food Growers Group have recently commissioned the preparation of a Strategy Plan/Business Plan. This document may contain additional information which would be of assistance to any operators in the region interested in the establishment of bush foods enterprises in this area.

Group 5 – Aboriginal and Heritage – Tourism and Education

i.) The activities listed in Group 5 are individual activities which will attract only limited tourist attention unless they can be “packaged” as an attractive and/or unusual tourism experience.

The real need lies in developing a cohesive approach between all indigenous/heritage groups to provide a well-researched and well-packaged tourism attraction and a well-managed tourism experience.

Through the Aboriginal and Torres Strait Islander Council (ATSIC) and the various indigenous groups in the region there is a need to develop incentives which are institutional, financial and educational to bring together the proponents of individual opportunities to form a cohesive regional heritage business, based on the Southern CRA Region.

ii.) An initial opportunity may be able to be realised by targeting the school education market and attempting to attract school tours. The benefits of targeting this group are as follows.

- They can be accommodated in “camp” style accommodation and will not require more sophisticated after hours entertainment,
- The experience can be built into a curriculum through enlisting the assistance of professional teachers and the Education Department,
- Preparation of “Project Guides” for education groups, prepared with the assistance of professional educators, can provide a source of sales revenues,
- The long-term effects of building interest in school groups for regional heritage tours is that they are likely to influence parents to come to the region.

An incentive to create such an educational tourism package will probably require a cooperative approach to the school education system to provide curriculum advice and learning models. The longer term tourism implications of such a package may attract some support funding from Tourism NSW.

Group 6 – Forest Based Recreation

- i.) Many of the activities proposed in this are group are “add-ons” to existing tourism operations in the region and represent little addition to employment in the region. Throughout the group, the degree of market research or knowledge is limited.

These opportunities are all commercially based and subject to the normal risks of any business in expanding or developing its services. The further development of these smaller, local industries may be given some incentives through local and State tourism development and promotional support.

- ii.) In the cases of 6(e), 6(g) and 6(j) the scale of investment and employment is significant but the opportunities are still speculative in their nature. They require considerable research before a commercial proposition can be developed.

The further development of these larger investment industries may be given some incentives through State tourism development and promotional support.

8. IMPLEMENTATION OF INDUSTRY DEVELOPMENT OPPORTUNITIES

8.1 PRINCIPLES FOR MANAGING IMPLEMENTATION

One outcome of the RFA process will be the possession of a list of forest based industry development opportunities that have been categorised and ranked into groups of like industries with assessed contributions to the region.

Implementation of new industries is not the ongoing responsibility of the RFA participants, but it is seen as the responsibility of several different government and semi-government organisations such as,

- The Regional Development Boards (mainly South Eastern and Riverina, but to a lesser extent also Murray and Central-West),
- NSW Department of State and Regional Development,
- Several Local Government organisations,
- State and Federal Government Departments which have specific policy or administrative responsibilities (AFFA, Aboriginal Affairs, etc),
- Local Chambers of Commerce, Development and Progress Associations, Business Enterprise Centres, Tourism Boards and Aboriginal Land Councils.

For the potential investor, the need to recognise and satisfy the requirements of interested parties is a daunting and time consuming task. To facilitate the implementation of any projects, whether they have high or low opportunity scores, will require a high degree of cooperation and coordination between the many interested organisations.

For reasons of cooperation and coordination, it is proposed that a number of implementation management principles are accepted as being necessary to ensure that commercial opportunities are not delayed, Government funds are accessed and utilised to best regional effect and social benefits are realised.

The implementation management principles that are proposed are as follows:

- **Avoid Duplication;**
- **Recognise and use regional organisations** that are already established to assist incoming industry;
- **Provide focus**, to ensure that all the resources needed for a new enterprise can be accessed easily;
- **Disregard administrative boundaries**, as most Government agencies divide the State into areas with different boundaries. Where an industry opportunity spans several of these “territories” a project team can be established;
- **Monitor progress** of each new enterprise, so that unnecessary delays can be identified and remedied;
- **Facilitate investment** by being able to identify economic and social benefits for the region; and
- **Identify funding and support sources**, particularly for less commercial opportunities that have community benefits.

Many of the opportunities fit into the structure of Regional Development Board activities, for which structures and funding arrangements have been established.

One advantage of using these organisations is that they are community managed and have programs aimed at providing “one-stop-shops” for intending investors. These organisations allow local coordination of all approval agencies and for the expertise of specialist agencies to be brought to bear on a range of industry opportunities.

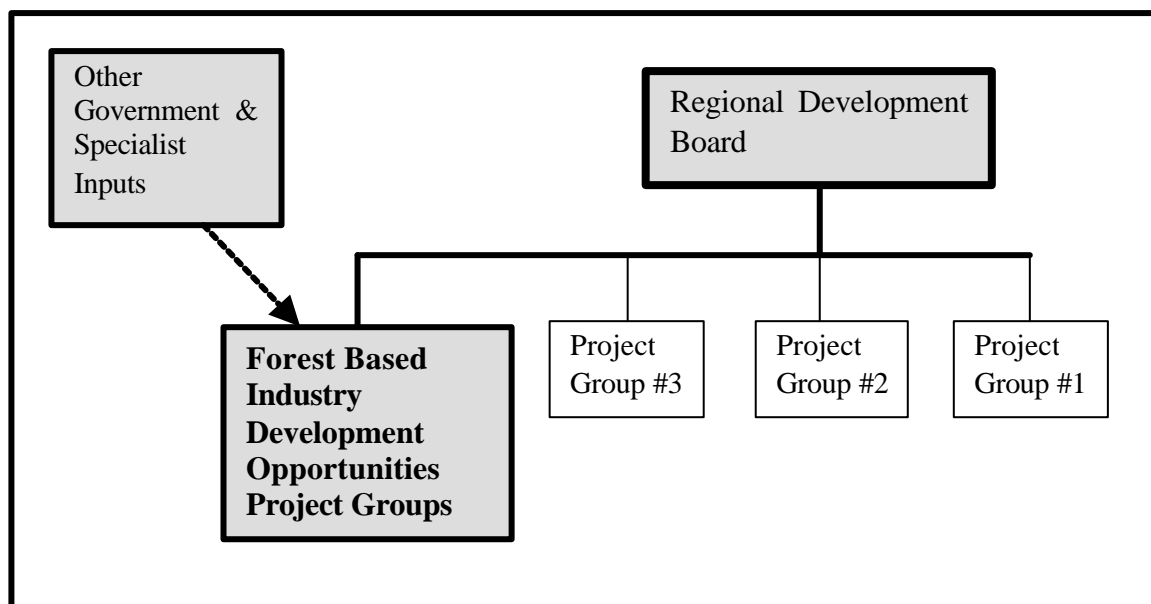
8.2 ORGANISATION STRUCTURES FOR MANAGING IMPLEMENTATION

The basic organisational model for implementing such a range of projects is that of the project management organisation which fits comfortably with the Regional Development Board structures currently operating throughout New South Wales. Most of those Boards consist of a central Board of Management supported by Project Groups.

The Project Groups harness the interest of community members and provide support for the projects through the following actions:

- Identification and recruitment of other project group members with particular knowledge, experience or resources which will assist the implementation of the project;
- Seeking and applying for any funding available to assist research, development or implementation of the strategy project;
- Representation, on behalf of the Board, to Ministers, Government Departments or investors to develop interest and support, remove barriers to progress or seek funding for project implementation;
- Requests, on behalf of the Board, for information, data or professional assistance from Government, academic or private research organisations, where it is necessary for the progress of project implementation; and
- Where requested, to assist Project Working Groups with arrangement of meetings and communications with group members.

An organisational model for implementation management is shown in Figure 8.1.

FIGURE 8.1 – IMPLEMENTATION ORGANISATION MODEL

The important advantages of this model are that it:

- uses existing organisational structures;
- maintains a high level of community involvement and ownership;
- can operate outside usual Departmental administrative constraints;
- can pool funds from different sources to achieve project objectives;
- maintains access to Government and industry expertise; and
- is seen as independent by private investors.

It is likely that the variety of forest based industry development opportunities for the region will require a number of project working groups to oversight and facilitate the range of projects. In that way, the individual project groups can maintain technical focus and community interest by concentrating on specific projects, rather than one group attempting to manage all opportunities.

8.3 ACTION PRIORITIES FOR INDUSTRY DEVELOPMENT OPPORTUNITIES

The scoring process for the industry development opportunities involved close scrutiny of key commercial, social and economic criteria that pointed to specific constraints and the need for some incentives for full development of project potentials.

In this section, we have taken the scores for those projects and categorised them into four different groups that indicate level of priority and type of action needed to improve project scores towards greater probability of commercial success. They are not based entirely on raw score, using the analysis of constraints to differentiate between those opportunities that can be implemented readily and those that require further refinement.

The categories for the opportunities are as follows.

Category 1: High scoring 45+; No major constraints; 1 to 3 year implementation horizon.

Category 2: Score 40+; Major constraint can be overcome; 2-10 year timing.

Category 3: Score 35+; Constraints require further research or action; 2-10 year timing.

Category 4: All other opportunities; could be undertaken, but with risk.

8.3.1 Category 1 Industry Development Opportunities.

High scoring 45+; No major constraints; 1 to 3 year implementation horizon

The following table lists Category 1 opportunities with scores and comments.

Industry Opportunity	Raw Score	Comments
1a. New Commercial Hardwood Plantations	48	Needs land and “patient money”
1b. New Commercial Softwood Plantations	56	Several projects under consideration
1f. Plantations for Effluent Disposal	48	Proven technology, Local Government investment
2a. New Sawmills; Adaminaby & Khancoban	46	Commercial only if supply is assured
2b. Increased Use of Mobile Milling	46	Small enterprise opportunity
2d. Drying Plant Capacity Increase	48	Commercial only if supply is assured
2e. Molding & Dressing Plant	48	Commercial only if supply is assured
2f. Timber Treatment Plant	48	Commercial only if supply is assured
2g. Bridge Manufacturing Plant	48	Commercial only if supply is assured and needs backing from RTA
4c. Native Cut Flowers and Foliage	44	Needs good market entry strategy

While most of these projects still require some additional research and decision to bring them to commercial operation, they are entirely consistent with regional development goals already identified, and with regional capabilities, in that they:

- provide a value-adding opportunity
- build on existing commercial activity in the region
- supply to proven markets
- have long term investment attractions
- fit within existing Government support programs
- increase regional income
- support regional employment
- strengthen existing capacity in support activities

These projects lend themselves to management through the model described in section 8.2, above.

8.3.2 Category 2 Industry Development Opportunities.

Score 40+; Major constraint can be overcome; 2-10 year timing.

Industry Opportunity	Raw Score	Comments
1c. Plantations for Carbon Sink Trading	44	Requires definition of market and credit trading rules
1d. Forest Plantations for Biodiversity	42	Requires definition of market and credit trading rules
1e. Forest Plantations for Rehabilitation	40	Requires definition of market and credit trading rules
1j. Nursery Plantations – Christmas Trees	40	Requires detailed market feasibility
4a. Apiary Produce	40	Requires access to expanded area
4f. Aquaculture	42	Requires agreements on river and stream use
5h. Seed Collection	40	Requires access to resource
6a. Craft Market Development	40	Requires more detailed market information
6b. Eco-experience Related to Forest	40	Requires more detailed market information

- The industry opportunities in group 1 require considerable clarification of market and access rules before they can attract investment.
- Nursery and Christmas Tree plantations are likely to be better developed after decisions on Carbon Credits and rehabilitation establish size of new markets.
- The projects 4f and 6a could be undertaken but would involve some degree of commercial risk that requires medium level capital investment.
- Project 6b could be undertaken with minor business risk, as an extension to the existing activities of a local tourist operator.

These projects lend themselves to management through the model described in section 8.2, above. However, they will need strong professional/technical support from Government representatives in policy formulation and impact assessment of the final protocols for carbon and salt credit trading.

8.3.3 Category 3 Industry Development Opportunities

Score 35+; Constraints require further research or action; 2-10 year timing.

Industry Opportunity	Raw Score	Comments
1g. Farm Forestry – Commercial Timber	36	Can start; will not generate employment in short term
1k. Plantation Research	36	Has not been explored to sufficient depth
2h. High Quality Furniture Manufacture	36	Shortages of craft skills need to be overcome and market defined
3f. Firewood (Canberra market)	36	Potential project with some work done with NSWFSF; long term questions
4d. Seed Collection	38	Access rules to be defined and market clarified
5a. Heritage Centre at Moruya	36)
5b. Aboriginal Elders Cultural Teaching	36) <u>All Group 5 projects are small</u>
5c. Aboriginal Eco-tours	36) <u>enterprises needing better market</u>
5d. Koala Sanctuary (Jervis Bay)	36) <u>definition and cooperative</u>
5e. Forest Interpretation Centres	36) <u>marketing approach to improve</u>
5f. Aboriginal Fisheries Eco-tours	34) <u>feasibility of indigenous tourism</u>
5g. Berry /Mogo Cluster – craft centres	38) <u>enterprises.</u>
5i. Heritage Education Tours	36)
6d. “Off road” tourism in Plantation Forests	36	Needs plantation owner approvals
6e. Forest setting for “Health Spas”	38	Market not defined; investment high
6g. “Exclusive” camp sites for young professional adventure market	38	Market not defined; investment high
6i. Development of Nature Trails	36	Not a great contribution
6j. Conferences and Seminars	36	Market not defined; investment high
6k. Forest Education Tours	36	Market not defined;

The common factor for all these industry opportunities is their lack of clear market definition.

- Project 2h, requires a carefully defined marketing approach to break into the high quality markets of Sydney and Melbourne where competitors have been under development for twenty years.
- There may be a potential market to be developed out of a well coordinated and marketed identification of the Southern CRA region as having a rich indigenous heritage and from exploiting the educational potential of its existing sites and knowledge base. Individually, the projects are minor contributors. Together they could become a high priority industry development opportunity.
- The group 6 projects offer a mixture of business potentials. 6e, 6g and 6j would represent major tourism investments in the region, but the market is not researched and the commercial potential is unknown.
- Project 6d requires plantation owner approvals for access. Projects 6i and 6k can be undertaken by existing operators without major investment or addition to tourism employment.

These projects lend themselves to management through the model described in section 8.2, above. The Group 5 projects will need to be oversighted by a Project Management group that represents the indigenous interests of the region and with access to professional tourism marketing advice. Government representation will be necessary to determine access to resources necessary to make some of the projects commercially attractive.

There should be close cooperation between the Group 5 and Group 6 projects and they could be managed through the same project management group.

8.3.4 Category 4 Industry Development Opportunities

Category 4: All other opportunities; could be undertaken, but with risk.

Industry Opportunity	Raw Score	Comments
1h. Farm Forestry – Carbon Trading	32	Awaits clarification of Kyoto protocols
1i. Farm Forestry- Rehabilitation	34	No immediate government support
2c. Increased Softwood Chip Export – Korea	34	Market and resource use are open to question
2i. Veneer and Plywood Mill	30	Linked Project reports as not feasible
3a. Charcoal Manufacture	28	Uncertainty as to quality of resource and applicability of technology
3b. Ti Tree Oils	28	RIRDC assessments of Southern region do not encourage this project
3c. Specialty Use Turpentines	22	Needs more market investigation, and proving of resource availability
3d. Ethanol	20	Unlikely to be commercially viable under current Australian energy regime
3e. Wood Briquettes	32	Viable market and scale of plant unknown
3g. Biomass Energy Generation.	26	Linked Project reports as not feasible
4b. Bush Foods	32	Not researched at this stage and will need to be tied to tourism “packages”
4e. Kangaroo Meat	30	Would need a lot more formal study to establish feasibility.
6c. Car-based Forest Tourism	34	Questions of appropriate use of forest resource
6f. 4WD Eco-tourism	32	Questions of appropriate use of forest resource
6h. Horse Recreation in Forests	34	Questions of appropriate use of forest resource

All the above industry opportunities are constrained by unanswered questions about market, technical feasibility and access. The two Linked Projects, Veneer and Plywood Mill and Biomass Energy, have produced results which raise doubts over their commercial viability.

None of the balance of the industry opportunities in this category represent potential major additions of employment to the region.

Proponents of these projects will have to establish much stronger cases before they should attract resources for their implementation.

8.4 MONITORING AND CHANGING PROJECT SCORES

The system of scoring industry development opportunities described in this report should be seen as one that produces a measure of opportunities that exist in a dynamic situation. The scores in this report will change as a result of:

- emerging new industry opportunities;
- more detailed research into markets;
- changes in competitive market conditions;
- decisions and policies that clarify market and trading conditions;
- changes in the availability of government funding; and
- improvements in delivery systems and technology.

It is important that any agency given the responsibility for implementing any or all of these industry opportunities conducts a regular review of scores and priorities, using the methodology. In that way, the setting of annual priorities will remain informed and objective.

Therefore, it will be necessary to pass an understanding of the scoring methodology to any agencies responsible for implementing new industry development opportunities.