SOCIAL ASSESSMENT REPORT

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Department of Natural Resources and Environment
8 Nicholson Street
EAST MELBOURNE VIC 3002
Ph: (03) 9637 8325

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Special thanks goes to those community members who gave generously of their time and knowledge. Much of rural and regional Victoria is undergoing increasing organisational change. The call on community participation to meet and manage the challenge of change is significant, and for this reason alone the continuing spirit of participants to address the Regional Forest Agreement process is greatly appreciated. The social assessment work benefited greatly from the comment and input by a diverse range of people who recognise the value of the forests in Gippsland and their value to the future of the region.

For further information regarding this report, please contact the Forest Community Co-ordinator for Victoria, Pam Robinson, on (03) 9246 6804 or 0419 400 847.

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Executive summary

Over the past decade, there has been a growing awareness by government, industry and the community of the importance of considering the social implications of decisions. Social assessment is a tool used to predict the future effects of policy decisions upon people, their physical and psychological health, well-being and welfare, their traditions, lifestyles, institutions and interpersonal relationships (D'Amore 1978).

A social assessment provides a 'snapshot' of the people and communities that may be affected by planning and policy decisions. Detailed information is collected on the social and biophysical environment, the historical background of an area and its response to change, contemporary issues, political and social structures, culture, attitudes, social-psychological conditions, community vitality and population statistics. This information is then used to predict the likely impacts, both positive and negative, which may be experienced by individuals and groups within the community, and to determine ways in which such impacts may be managed. As Armour (1990) has outlined, such impacts may include changes that occur in:

- people's way of life (how they live, work, play and interact with one another on a day-to-day basis);
- their culture (shared beliefs, customs and values); and/or
- their community (its cohesion, stability, character, services and facilities).

Social assessment is also a mechanism that facilitates stakeholder and community participation in a decision-making process. Through participatory techniques such as workshops and public meetings, people can become involved in the collection of social information relating to their area. This information is considered critical in the social assessment process, as people who may be directly affected by a particular policy proposal are in the best position to say how such events are experienced.

Information collected in the assessment phase will be used as a platform from which impact predictions can be made during the integration phase of the Regional Forest Agreement process.

A variety of data collection methods and data sources have been used as part of the Gippsland social assessment to strengthen the study design and validate the results. The methods included documentary analysis, secondary statistical analysis, mail and telephone surveys, personal interviews, participant observation, informal networking and workshop techniques.

Information gained from the various study methods showed that the Gippsland RFA region can be divided into distinct regional groupings or clustering of towns. The geographic clustering of towns is known as town resource clusters (TRCs). The six TRCs consist of four within the Gippsland RFA area—Bairnsdale (inner), Latrobe Region (inner), Sale and the South Coast. Another two sub-regions were identified

adjacent to the Gippsland RFA area—Latrobe Region (outer) and Bairnsdale (outer). Both of these outside sub-regions have several forest based industries accessing forest resources from the Gippsland RFA area. The regional profile and the analysis of the mail and telephone surveys are based on these TRC regions.

Mail surveys were distributed to forest contractors, timber processing industries, forest-user businesses (e.g. apiarists, seed collectors, graziers, firewood collectors, prospectors and miners), and tourism operators. A total of 488 surveys were distributed to businesses with an overall response rate of approximately 13.7 per cent (variations were evident across different forest-user groups). Separate questionnaires were distributed to the employees of these businesses. A total of around 2500 surveys was administrated.

The community telephone survey undertaken as part of the social assessment work was based on a sample size of 1100 households. Results of the telephone survey were stratified over the four TRCs located within the Gippsland RFA area.

More detailed assessment work was undertaken in a series of case studies covering six communities across the region: Yarram, Heyfield, Dargo, Swifts Creek, Bairnsdale and Sale. These communities differed in terms of their population size, dependence on forest uses and values, diversity of the local economy and geographic location.

This report contains the views of many people in Gippsland or those with an interest in the forests of the region. The views expressed are not necessarily those of the Steering Committee or the Commonwealth or Victorian Governments.

Social and economic profile

In 1996, the total population of the Gippsland RFA region was 174 073 persons, with little change in the population of the Gippsland region between 1986 and 1996. The age and life cycle profiles for the Gippsland region are almost identical to rural Victoria as a whole. However, there has been an increase in the number of residents over 40 years of age and some decline in the number of younger families and residents below 40 years of age within the region.

The percentage of residents born overseas was slightly higher than the average in rural Victoria. Some variation was also found over the sub-regions, with the Latrobe Region (inner) TRC having more residents born overseas, especially from non-English speaking countries.

The labour force has a similar percentage of white- and blue-collar workers in the Gippsland region when compared with rural Victoria as a whole. The main employment industries in Gippsland include the retail trade (14.5 per cent) and agriculture, forestry and fishing (13.5 per cent). The Gippsland region has a higher rate of employment in the mining and electricity, gas and water supply industries than the average in rural Victoria. This is mostly due to the power industries located in the Latrobe Region.

The education profile for the Gippsland region is similar to that of rural Victoria as a whole. There has been some decline between 1986–1996 in the number of residents attending pre-primary and secondary educational institutions, and there has also been an increase in the number of residents attending TAFE and university or other tertiary institutions.

The unemployment rate within the Gippsland region increased from 7.8 per cent in 1986 to 12.2 per cent in 1996. This rate is higher than the 10.2 per cent found in rural Victoria as a whole. Across each of the six TRCs, the unemployment rate varied from 9.6 per cent and 9.7 per cent in the South Coast and Sale sub-regions to 14.5 per cent and 13.7 per cent in the Bairnsdale (inner) and Bairnsdale (outer) sub-regions.

Changes in forest land use

In the Gippsland region, changes in both Federal and State government policies have required some readjustment of the management of forest resources with subsequent implications for its communities.

Throughout this century, forest related industries have experienced varying degrees of economic growth and diversification due to a range of economic, technological, and social changes. Within the Gippsland region, changes in government regulation of land use and forest management practices have required significant readjustment by these industries with an associated contraction in employment.

A number of inquiries/strategies have been initiated to address the balance between environmental protection and industry development. These include:

- Timber Industry Inquiry;
- Victoria's Timber Industry Strategy (1986);
- Code of Forest Practices (1989, 1996);
- State Plantations Impact Study (1990);
- National Forest Policy Statement (1992); and
- numerous studies by the former Land Conservation Council (LCC).

In the 1970s, 1980s and 1990s, the LCC conducted a series of land use studies in Gippsland. These studies included regional investigations and Statewide theme investigations such as wilderness. Each study considered the full range of values and uses on public land in the region, including assessment of socio-economic impacts.

The LCC collected a large volume of social and economic information on a range of values and uses in Gippsland, and took this into account in making its recommendations in the various studies. This information was also used to minimise the social and economic impacts of various recommendations on individual enterprises and local communities.

Stakeholder views

In recent years, there has been a growing interest in forest issues and a considerable increase in the number of groups wishing to influence forest use and management. These groups often bring quite different perspectives and values to particular issues. Often it is those groups in close proximity to the forest, those with pre-existing rights, local knowledge and high dependency that have less power or influence in the forest debate (Colfer 1995). An analysis of the main issues and the response of different stakeholder groups is useful in predicting how individuals and groups may respond to different policy alternatives.

Timber industry

Issues raised by the timber industry related predominantly to access to the forest and resource security. Those involved sought better public education on regeneration potential. They expressed the desire for long-term planning in harvesting operations to create employment certainty, facilitate job creation and allow them to pursue new business and market opportunities. There was also a desire to minimise conflict with conservation groups.

Tourism, recreation and outdoor education

Tour operators were concerned about some forest management practices, particularly the visual impact of harvesting on their operations. There was support for selective harvesting, replanting of mixed species after harvesting, and the need for greater maintenance of forest tracks and control of noxious weeds. Access was identified as an issue and the need to be informed about harvesting and forestry activities, which may restrict access to public forests. Opportunities identified by tour operators related to increased linkages between tourist operators and other forest industries, in particular, the need for educational tours between the timber industry, forest staff and tourism operators. Development of eco-tourism was identified by tour operators as a further opportunity in the Gippsland area. Opportunities were seen for increased support for outdoor education.

Conservation

People particularly interested in conservation expressed concern about forest management practices and their environmental impacts, and were keen to have a greater participation in the management of forests. They expressed a desire for more areas to be placed in National and State parks and reserves. Stakeholders also raised issues in relation to loss of biodiversity, wilderness and old growth values, soil erosion and weed infestation. Within Gippsland, major opportunities identified by conservation interests included expansion of nature-based tourism to support other regional economic developments, and there is also a potential for greater links between the ‘High Country’ and the coastal environments.

Other forest uses (apiculture, seed collection, firewood, craftwood and grazing)

Those involved in forest uses, other than timber harvesting, questioned particular management practices in relation to their business. For example, apiarists believed that selective harvesting enabled better retention of trees valuable for honey and identified a need for mixed species reforestation. Concerns were also expressed in regard to the need for all forest uses to be fully considered, and improved availability of long-term licenses for other forest produce such as seed and craftwood collection. Opportunities were seen to lie in continued access for multiple use and increased links between other forest products and tourism.

Mineral production

Access to public land was a prominent issue for miners and prospectors, who believed that enough forest areas were already in reserves. They expressed a desire to have a greater participation in forest management, and would like to see improved practices in relation to fire management, weed control and track maintenance. It was also indicated that outcomes could be achieved which satisfied both industry and conservation goals, and that more tourism opportunities could be made from mining, prospecting and fossicking activities.

Landholders

Landholders discussed the need for shared use of forests by industry, tourism and recreational users. Concern was raised about the visual impact of harvesting and the need for adequate buffer zones to minimise the visual impacts of forestry activities. Landholders were concerned about weed infestation and water quality because of harvesting techniques and burning practices. Road damage and safety issues were also outlined. Opportunities for farm forestry and plantation development were considered important on both public and private land.

Local government

Local government representatives focused on planning controls and infrastructure provision, particularly concerning road maintenance and upgrading. Concerns were raised regarding water quality and environmental aesthetics. Opportunities were seen to exist in terms of increased support for farm forestry, improved relationships with the timber industry and the economic benefits of this partnership for local communities.

Aboriginal groups/communities

Aboriginal groups expressed a need for ongoing dialogue and involvement after the signing of the RFA to ensure that their perspectives and interests were taken into account. These included continued access to sites of significance, input into forest

management plans and respect for their right to not have some significant sites identified or listed on maps. Other issues were Native Title and associated land claims, the impacts of logging in sensitive areas of historical/cultural significance and employment opportunities in forest management.

Community telephone survey

The views of the Gippsland community were obtained through a telephone survey of the region. The results illustrate a range of attitudes and views towards the use and management of native forests in the region. In comparison with the 1996 population census, the survey tended to over-sample female respondents. However, the sample ages were within 5 per cent of census percentages for the same age ranges.

Twenty-seven per cent of respondents or household members of respondents were employed in one or more forest based industries. Of these, 53 per cent were employed in grazing, with a further 22 per cent employed in tourism and 13 per cent in plantation timber production. Of the four sub-regions that comprise the Gippsland RFA region, the Latrobe Region (inner) sub-region had the highest concentration of residents participating in activities and industries that use land in public native forests, with the majority (57 per cent) involved with plantation timber production.

Eleven per cent of the total respondents indicated that they have been involved in native forest management, planning or preservation in Victoria. Thirty-six per cent have been involved in tree planting on a farm, school or organised events, while a further 20 per cent have been involved in environmental groups such as Landcare.

Within the last year, 51 per cent of respondents had visited a National Park in Victoria. However, across the sub-regions there was a significant variation in the use of National Parks, with relatively few respondents in the Bairnsdale (inner) sub-region (42 per cent) and relatively more (67 per cent) of respondents in the South Coast sub-region visiting National Parks. There was also a trend for respondents in the Latrobe Region (inner) sub-region to visit National Parks less frequently than respondents in other sub-regions. During the last year, 35 per cent of respondents indicated that they had visited State forest in Victoria, with relatively higher percentages visiting State forests in the Latrobe Region (inner) and South Coast sub-regions than respondents from either the Sale or Bairnsdale sub-regions. While a greater number of people have visited a National Park within the last year when compared with a State forest, the frequency of use of State forests is significantly higher than that of National Parks.

The most frequently visited National Parks during last year were Wilsons Promontory National Park (38 per cent), Tarra Bulga National Park (27 per cent), and the Alpine National Park (27 per cent). The majority of respondents could not identify the State forests they visited during the past year, so those forests most frequently visited have not been identified. Walking or bushwalking was the primary activity of respondents when visiting either a National Park (86 per cent) or State forest (50 per cent). Other popular activities in National Parks included sightseeing (26 per cent), picnics or barbeques (22 per cent), camping (21 per cent), driving or four-wheel drive travel (16 per cent) and fishing or hunting (11 per cent). In comparison, other major activities in State forests were driving or four-wheel drive travel (32 per cent), picnic or barbeques

(18 per cent), sightseeing (18 per cent), firewood collection (12 per cent) and camping (11 per cent).

Ninety per cent of respondents were interested in the management and use of National Parks and 85 per cent of respondents were interested in the management of State forests, with no significant differences across sub-regions. Sixty-one per cent of the respondents were confident that National Parks are being managed well in Victoria, similarly, 56 per cent were confident that State forests are being managed well. When asked to nominate the three most important things that needed to be considered in the management of National Parks in Victoria, 21 per cent of respondents indicated maintaining public access, 19 per cent indicated maintaining or improving fire management, and 13 per cent indicated protection of native flora and fauna. In comparison, the three most frequently raised issues in State forest management were fire control and management (22 per cent), replanting and reforestation (20 per cent) and maintaining public access (13 per cent), however, 20 per cent of respondents were not able to identify issues important to the management of National Parks and 25 per cent were unable to identify issues important to the management of State forests.

Respondents were also asked if there had been changes in the use of native forests in the past five years which affected their community. Twenty-eight per cent indicated that there had been a change, however, there was some variation in these responses when a sub-regional comparison was made. In the Bairnsdale sub-region, 42 per cent of respondents indicated there had been a change in the use of native forests which had affected their community, as compared with 30 per cent in the South Coast, 28 per cent in Sale and 24 per cent in the Latrobe Region. The three most common changes included restrictions on native timber harvesting (15 per cent), loss of population (10 per cent) and loss of employment opportunities (8 per cent).

The results of the survey indicate that the people in the Gippsland region value the forests for their environmental values, with the majority interested in their management. The results also highlight that people are aware of the importance of the forests to their local economy. Eighty per cent of respondents believe that National Parks are important to the local economy of the area they live in. Similarly, 80 per cent of respondents believe that State forests are important to the local economy of the area they live in.

Forest industry activity and linkages

This section provides an analysis of industry mail surveys conducted as part of the social assessment for the Gippsland RFA. It identifies communities that are reliant on forest based industry activity in the region, and identifies significant relationships between specific areas of forest resource in the region and communities dependent on that resource.

The analysis is based on six township resource clusters (TRCs) identified in the Gippsland RFA region, which are communities geographically distinct from other areas. The six TRCs include the Latrobe Region (inner), South Coast, Sale, Bairnsdale (inner), Latrobe Region (outer) and Bairnsdale (outer).

The six TRCs were defined on the basis of the geographic distribution of mills and resource drawn from the forest management areas (FMAs) in the Gippsland region. Gippsland contains three FMAs, all of the Tambo FMA and parts of the Central Gippsland and Wodonga FMAs.

Native timber processing industry and forest contracting industry employee profile

There are 22 timber processing industries drawing their resource from the Gippsland region, comprising 20 hardwood mills and 2 pulpwood processors. The timber processing industries employ 1508 people. The APP Maryvale mill employs 940 people which is approximately two thirds of all employment, however, only part of the resource comes from native forests in the region.

The Latrobe Region (inner and outer) TRCs have nine mills and 81.5 per cent of all timber processing industry employees. In addition, the Bairnsdale (inner and outer) TRC has eight mills and 9.2 per cent of all industry employees. Neither the Sale nor South Coast TRCs contain any timber mills, and the remaining five mills outside the Gippsland region are not included in the TRC analysis.

The majority of all timber processing industry employees (73.5 per cent) lives in the Latrobe Region (inner) TRC which draws the majority of its resource from the Central Gippsland FMA. These employees primarily reside in the towns of Traralgon, Heyfield, Morwell, Moe, Hazelwood North, Tyers and Glengarry. Any change in resource status from this FMA, which may impact on employment, has the potential to affect these towns. Mills located in Bairnsdale (inner) TRCs draw the majority of the resource from the Tambo FMA. Employees of mills in this TRC reside in the towns of Bairnsdale, Buchan and Bruthen. Again, any change in the status of the resource in the Tambo FMA, which may affect employment, is likely to impact on these towns.

An examination of the profile of forest industry employees indicates that 84 per cent of mill employees are male, and the mean age is 40 years. On average, these employees have been working in the current business for nine years and have worked in this industry sector for 11 years. The majority of employees are long-term residents of the town they live in and have lived there for an average of 19 years. Fifty-one per cent of employees have an education level of year 10 or less. Two thirds of all employees are married, with 22 per cent of employed partners working in the same industry.

An estimated 79 contracting businesses involved in native sawlog harvesting, transportation and forest roading, access forest resources within the Gippsland RFA region. The majority (51 per cent) is located within the Latrobe Region (inner) TRC and, in particular, Traralgon (19 per cent).

As survey information was available for only 34 per cent of contracting business employees, the residential location of all contracting business employees could not be identified from the surveys. However, analysis shows that most employees live in the same TRC as the one in which they are employed. It was therefore estimated that there were 387 employees of contracting businesses, with 196 employees in the Latrobe

Region (inner) TRC, mostly in Traralgon (74 employees), Heyfield (34 employees) and Tyers (29 employees).

The profile of contractor business employees indicates that 89 per cent are male and have a mean age of 42 years. On average, employees have been working in the current business for 10 years and have worked in this industry sector for 17 years. The majority of employees are long-term residents of the towns they live in and have lived there for an average of 27 years. Of the employees 55 per cent have an education level of year 10 or less, 82 per cent are married, with 26 per cent of all employed partners working in the same industry.

Native timber processing industry and forest contracting industry household expenditure

Timber processing industries located in the Latrobe Region (inner) TRC source much of their goods and services from the towns of Traralgon and Leongatha, while timber processing industries in the Bairnsdale (inner) TRC source their goods and services primarily from Bairnsdale and Bruthen. In addition, industries located within the Latrobe Region (outer) TRC source their goods and services from Warragul and, to a lesser extent, from Melbourne and Traralgon.

Forest contracting industry businesses located in the Latrobe Region (inner and outer) TRCs source many of their goods and services from the towns of Traralgon and Warragul, while forest contracting industry businesses in the Sale TRC source their goods and services from Sale, Traralgon and Maffra. Due to the low survey response rate, no statistically valid information was available from businesses located in the Bairnsdale (inner and outer) TRCs. However, it is evident that the town of Traralgon is a major supplier of goods and services to contracting businesses in the Gippsland RFA region.

Timber processing industries located in the six TRCs generate $26.1 million in annual household expenditure. Of this, the APP Maryvale mill alone generated $18 million in annual household expenditure. In addition, the mill at Heyfield generates $2.8 million and the mill at Drouin West generates $1.3 million in annual household expenditure.

In addition, forest contracting businesses employees involved in native sawlog harvesting, transportation and forest roading are estimated to generate an additional $7.4 million in annual household expenditure. The majority of this occurred from employees based/residing/working within the Latrobe Region (inner) TRC ($3.7 million).

The timber industry (including contractors) sourcing resource from the Gippsland region makes a significant contribution to the local and regional economy, with an estimated $33.4 million in employee household expenditure generated by these business each year.

Other forest related industries

Other forest related industries within the region include cattle grazing, apiary, mining and prospecting, and tourism. The return rate of questionnaires from businesses which held licenses for these activities was low; grazing (1.6 per cent), apiary (11.5 per cent), prospecting and mining (7.3 per cent) and tourism businesses (9.7 per cent). The return rate for employees of those businesses was also low.

The town location of grazing businesses was examined. Of the 44 grazing businesses identified, 26 (59 per cent) were located in the Bairnsdale (inner) TRC, primarily around the towns of Omeo and Benambra. An additional 20 per cent was located in the Sale TRC, primarily around the towns of Glenmaggie and Maffra. Responses also show that several businesses hold multiple grazing permits.

Of the 78 apiarist businesses identified, 53 (68 per cent) were located in the Bairnsdale (inner) TRC, primarily in the towns of Bairnsdale, Lakes Entrance and Omeo. Many towns had apiarists businesses that held multiple permits, which may provide some indication of the size of the businesses in the town. On the basis of the number of permits held, the towns of Bruthen and Bairnsdale had the largest apiarist businesses.

The majority of prospecting and mining businesses are located in the Bairnsdale (inner) TRC (74 per cent) and in particular in the towns of Bairnsdale (34 per cent) and Omeo (26 per cent). An employee profile of prospecting and mining businesses has been developed, although some caution should be used in interpreting this profile given the low sample size on which it is based.

Responses from prospecting and mining employees show that all employees were male, with a mean age of 56 years. On average, employees have been working in the current business for 24 years and have worked in this industry sector for 27 years. The majority of employees are long-term residents of the town they live in, having lived in their current town for an average of 32 years. Seventy per cent of employees had a year 10 or lower level of education. Sixty-seven per cent of all employees were married with no employed partners working in the same industry (based on returned industry surveys).

Of the 97 tourism businesses that held permits to operate in public forests, 76 per cent of the Victorian businesses were located outside of the six TRCs and the Gippsland RFA region, with 44 per cent of all tourism businesses based in Melbourne metropolitan area. Of the 15 per cent of tourism businesses located within the Gippsland RFA region, about half were located in the South Coast TRC.

For each of the 97 tourism businesses which had permits to access public native forests within the Gippsland RFA, 35 per cent were licensed to use the Alpine National Park, with the Wonnangatta and Bogong the most commonly licensed areas within the Alpine National Park. In addition to the use of the Alpine National Park, Wilsons Promontory National Park (17 per cent) and the Mitchell River National Park (11 per cent) were also frequently licensed by tourism businesses.

The questionnaire distributed to tourism businesses (permit holders) asked each business operator to identify those towns in the Gippsland RFA region they considered tourists were most likely to visit. Although only based on 11 responses, the main towns are Mt Hotham (91 per cent), Walhalla (73 per cent), Lakes Entrance (64 per cent) and Bairnsdale (55 per cent).

An employee profile of tourism businesses was developed based on the responses of 33 employees. A profile of tourism business (permit holder) employees shows 52 per cent of employees were male and the mean age of employees was 36 years. On average, employees had been working in their current business for six years and had worked in this industry sector for nine years. The majority of employees were not long-term residents of the town in which they lived, having lived in their current town for an average of nine years. Of the employees, 79 per cent had a year 12 or higher level of education. Fifty-eight per cent of employees were married, with 41 per cent of all employed partners working in the same industry.

Community case studies

As part of the social assessment process, detailed assessment was undertaken in six communities across the region. A variety of methods was used to develop a detailed profile of each community. Information was obtained through secondary data source such as ABS statistics, Shire reports, government publications and community service directories and through community workshop and extensive fieldwork in each of the communities. This information was collected to assess the socio-economic structure, historical response to change, community attachment and to identify forest values and attitudes towards forest use and management.

The township of **Yarram** provides a major service role for the surrounding rural communities, and the agricultural, timber, fishing and tourism industries. Over the past 10 years the significant events for the township have included the restructuring of local Government and Government agencies, changes to the timber industry and agriculture sector, and an increase in environmental awareness. Participants indicated there had been a loss of services, jobs and employment prospects but believe the community is now more resourceful and self-reliant. Major forest and agricultural issues for the region include improving water quality, the effect of downsizing NRE and the impact of transferring management responsibilities for plantation timber in the Strzelecki Ranges to the Victorian Plantations Corporation (which was sold in December 1998 to Hancock Victorian Plantations). One of the major visions for Yarram is the desire to see a major National Park in the Strzelecki Ranges. Another vision is the expansion of educational and employment opportunities for younger people.

Heyfield provides an entry point to the Alpine National Park and the high country. Heyfield is seen as a service centre for the agriculture and timber sectors and surrounding dairying and beef cattle district. It is the centre of the hardwood timber industry in the Wellington Shire. Significant events for Heyfield include the decline of the agriculture sector and the restructuring of local government, government agencies and health services and loss of services/employment such as the closure of Ladners

Mill. The restructure of the Council resulted in a loss of jobs for the local contractors as larger contracts were awarded to bigger firms. The closure of Ladners Mill, initially meant the loss of 45 jobs. However, Neville Smith Timber Industries has subsequently employed 23 of those retrenched workers. The new mill operations and restructure have brought greater stability to the township and greater job security. The participants identified the key visions for the township as to improve water management, have a stable district population (provide opportunities for young people to remain in town), and find new tourism opportunities including construction of a 'Timber and High Country Interpretation Centre'.

Dargo is a small township located on the Dargo River, and is a gateway to the snowfields and the 'High Country' National Parks. Its major industry is beef cattle, although there is some sheep farming. It also produces a significant amount of walnuts for commercial purposes, and is experiencing an increase in tourism. Significant events in Dargo have been the closure of the Dargo sawmill, the downturn of the agriculture sector and natural disasters, such as drought and floods. Participants noted the district income had declined and most farm families are now supported by off-farm income. The closure of the Dargo mill and the resulting job losses impacted on the social and economic life of the town. The workshop participants recognised that Dargo would change and develop but wanted the town to retain its special qualities. Tourism was seen to be the most likely economic base for the town, especially with the interest in deer hunting. Some participants felt an all-weather sealed road to Mount Hotham would also help promote tourism.

Swifts Creek is a small highland settlement along the Great Alpine Road. The area relies on agriculture, the timber industry, tourism and some mining. Significant events in Swifts Creek include the closure of the Ezard mill and Benambra mine, restructuring of local government and government agencies, withdrawal of commercial and government services, and the opening of Great Alpine Road. The closure of the Ezard mill resulted in a loss of jobs and young people from the district. There was also a feeling of alienation as Government decisions which impact on the town are made by those outside the community. A central vision of the workshop participants is to maintain and improve the community's access to services, so that it has a standard of living similar to city dwellers. Participants also wanted to broaden the economic base of the township by encouraging sustainable agriculture, mining, tourism and value adding at the Swifts Creek mill. Since the social assessment workshop was held, there has been a fire at the mill and Neville Smith Timbers has decided to close the mill and give staff the option to relocate to Heyfield.

The township of **Bairnsdale** is the major service centre for the East Gippsland Shire, and contains a full range of commercial and retail facilities, a regional hospital, a range of educational facilities, public sector services and an airport. The significant events for Bairnsdale include the general economic decline, and the restructure of the forest industries, local government, government agencies and health services. The participants believe Bairnsdale is suffering from the cumulative effects of drought, agricultural economic downturn and the rationalisation of government departments and utilities. This has depressed the town's economy and increased unemployment. Changes in the timber industry, including closure of some small mills, have resulted in a loss of jobs. Some participants felt that, since the Timber Industry Strategy, there

has been an increase in planning, better supervision and more professional forest management practices. Others expressed scepticism about the industry's performance now that it is self-regulating. One vision for Bairnsdale related to increased employment for future generations through a broader economic base, such as tourism. However, there was concern that the push for tourism was causing environmental problems, including blue-green algae in the lakes.

Sale is the largest centre for retail, commerce, administrative and human services, including education, within the Wellington Shire. It also has a large regional arts centre. The significant events in the community have been the restructuring of the timber industry, the loss of major industries and services, restructuring of local government and government agencies, natural disasters and the Longford Gas Plant incident. Participants recounted how the local agricultural industry had faced depressed wool and beef prices, as well as suffering drought and sheep disease in the past few years. Until the 1990s, Sale had been a prosperous town but now many industries have left the region causing high unemployment. Participants felt that the major issue for forests in the region was the shift in forest use towards increased timber production rather than mixed species forests for multiple use. The participants identified a number of tourism opportunities for Sale including the development of world class wetlands, the re-development of the Port of Sale and an improved road over the mountains past Dargo.

Forest values and usages

Forest values and uses were also examined across the six case study areas. 'Representation of Place' maps generated by community workshop participants were used to capture the range and diversity of values people ascribe to their local environment.

It is evident from the community workshops that people living within the Gippsland region participate in a variety of economic, recreational and cultural forest related activities and identify with a range of forest values. The following table is a summary of the forest values and uses nominated by workshop participants across the six case study areas. Maps and further information from the community workshops are included in this report. This information provides an insight into the variety of values and uses that people associate with the forests of Gippsland. However, given that it was derived from workshop participants it should not be viewed as a comprehensive assessment of the range of uses or the only locations where those activities or values occur.

Conclusion

The information collected as part of the social assessment process indicates that there are a range of positive and negative impacts that may be associated with changes in forest policy within the Gippsland region. These impacts will vary according to geographic location, regional/community context and by stakeholder group. Based on the data gathered, social impacts may be studied further during the development of a proposed reserve design for the Gippsland RFA.

While the data collected in the social assessment will be used to inform the RFA decision-making process, it is anticipated that this information will be useful in facilitating future social and economic development within the Gippsland RFA region.

Forest values and usage

Historic e.g. historic towns, gold mines, saw mills, cemeteries, swing bridge and research; and Aboriginal cultural sites, heritage trails, 'High-country' stations and hut sites.

Aesthetic e.g. sightseeing, scenic views and drives, coastal reserves, lakes and river surrounds, bird and fauna watching, scenic dairy country, landscape, alpine visual amenity, and waterfalls.

Environment e.g. Mountain Ash forests, cool-temperate rainforest, water catchments, wetlands, Strzelecki Ranges, algae in lakes, Red Gum plains, landcare, salinity problems, erosion, burrowing frog, bats, wild dogs, limited access for bees and need for fuel reduction burns.

Recreation e.g. surf fishing, camping, horse riding, four-wheel driving, water recreation, boating, canoeing, swimming, surfing, skiing, winter sports, picnicking, barbeques, trail bike riding, deer/duck hunting, bushwalking, port and coastal walks.

Economic e.g. tourism, firewood collection, apiary, farming, walnuts, mountain cattle grazing, droving, aquaculture, timber harvesting, plantations, geological activity, prospecting, restaurants, and eco-tourism.

Education e.g. 'Forestech'—living resources centre, nature study, school trips, school camps, low-cost recreation for youth, forest interpretation, field naturalist activities, and retreats.

Social/cultural e.g. cultural heritage tours through the Bairnsdale Aboriginal Co-operative, lifestyle attractions, sheer enjoyment, holidays, Ninety Mile Beach marathon, family ties, galleries, arts and cultural activities, and visiting friends and family.

Introduction

The **first section** of this report defines social assessment and highlights the importance of considering this approach within a natural resource planning context. The section provides a brief overview of the social assessment process, outlining the methods employed. A multi-method approach to data collection has been adopted utilising survey, interview, workshop, networking and participant observation techniques. Public involvement is a critical component of any social assessment process and as a result the methods have been selected to maximise community participation, where possible.

The **second section** of the report provides a description of the Gippsland RFA region. Through the use of historical analysis and a comprehensive review of secondary data sources, including state and regional statistical information, a picture of the social environment within the region is constructed. This section also details the major social changes that have occurred in the region in relation to forest land use as a result of land use decisions.

Section three describes the views of the general community, obtained through a telephone survey of the Gippsland region. The objectives of this study were to identify:

- community attitudes towards the management and use of forested lands; and
- the level of community dependency on forested lands within the Gippsland RFA region.

Section four identifies the linkages between land used by timber and forest-related industries and communities. Survey and catchment analyses are used to identify employment, expenditure and services use patterns across the region and subregions to highlight communities with a particular dependence upon the forest resource.

Section five identifies the views of stakeholder groups with an interest in the management and use of native forests within the region. The stakeholder analysis is based on survey responses, discussions and consultations held with a range of key stakeholder groups and individuals at a state, regional and local level.

Section six provides information on six case study areas which are intended to characterise the social and economic diversity of the region. Profiling work at the local level provides an analysis of a community's ability to respond to change, the community's relationship with the forest, patterns of use and the community's visions for the future.

1 Methodology

The social assessment approach employed in the Regional Forest Agreement (RFA) process for Gippsland region of Victoria reflects the work of social assessment practitioners such as Dale and Lane (1994) and Taylor, Bryan and Goodrich (1990), who propose an iterative and adaptive issues-oriented approach to social assessment.

The aim of the social assessment process is to provide a better understanding of the social environment within a particular region to inform the development of a Regional Forest Agreement. This involves the collection of objective facts, such as population statistics, and the documentation of community values and perceptions on particular issues. Certain methods employed within the assessment process, such as the random survey method, may be considered more representative than other methods such as workshops. However, when a triangulation approach is adopted, which utilises both quantitative and qualitative methods of inquiry, the validity or accuracy of the information collected is enhanced. Triangulation attempts to integrate data collected through different methods and sources to gain a more comprehensive understanding of the domain under investigation.

While much of the data collected in the process is of a cross-sectional nature, whereby a sample of the population is selected and information collected at one point in time, historical analyses have been undertaken to place the present social environment in a historical context of change. It is important to note that research design and the choice of data collection methods depends largely on the nature of the problem under investigation, the population being researched, the extent of resources available and the constraints of the framework in which social assessment is being undertaken.

The following criteria (Table 1.1) were considered to be important in relation to a community's sensitivity or vulnerability to change. Relevant indicators were established for each criterion and measured at a community level of analysis, where appropriate. The table also identifies the data collection methods employed. These methods are outlined in detail later in this section.

Data collected in the assessment phase will be used as a platform from which impact predictions can be made during the integration phase of the RFA process.

Table 1.1 Social indicators

Criteria	Indicators/variables	Method of collection
Economic viability	• Industry diversity • Industry by employment • Size of local businesses • Household income • Number of dwellings sold • Local and regional expenditure patterns of forest-related industry within the region • Household expenditure patterns of forest-related industry employees	• Review of secondary data sources such as Australian Bureau of Statistics (ABS) and the Integrated Regional Database (IRDB), Shire/Council reports • Surveys of forest-related industries and employees of these industries

Forest industry employment and labour force characteristics	• Profiles of occupational groups working in forest related industries including:
	  • number of workers
	  • years worked in the industry
	  • experience in other industries
	  • age and structure of workforce
	  • educational level
		• Review of secondary data sources such as ABS, IRDB statistics, previous research within this population
		• Information from industry associations
		• Surveys of forest users

Population characteristics	• Population growth • Population size • Population mobility • Median family income • Age structure • Median weekly rental • Number of mortgaged houses • Percentage of private authority dwellings • Percentage of occupied rental dwellings • Educational qualifications • Family distribution/Ethnicity	• Review of secondary data sources such as ABS, IRDB, Shire/Council, government agency reports
Provision of social infrastructure	• Extent and use of community services such as education, health, welfare and recreation	• Review of secondary data sources such as ABS, relevant government agency reports and statistics, community service directories
Community vitality	• Length of residence • Membership/participation in community organisations • Housing ownership • Income distribution • Rate of unemployment	• Review of secondary data sources such as ABS statistics. • Surveys • Qualitative assessment through informal interviewing, participant observation, networking, and community workshop
Social well-being	• Density of local ties • Sense of community • Attachment to place	• Survey methods • Qualitative assessment through: informal interviewing, participant observation, networking, and community workshops • Review of secondary data sources
Historical response to change	• Historical response to change • Significant events in the community • Community response or management of change	• Qualitative assessment through review of secondary data sources such as archival records, oral histories, social indicator data. • Interviews and community workshops
Community visions and aspirations	• Alternative economic opportunities for the township or region as perceived by the community	• Qualitative assessment through: informal and semi-structured interviews, and community workshops
Community attitudes towards forest use and management	• Community attitudes to forest use and management • Potential impacts resulting from changes in resource availability	• Quantitative and qualitative assessment through: surveys, community workshops, and structured interviews

1.1 Quantitative data collection methods

1.1.1 Social indicators

Social indicators are measures of community and social well-being that are measured at regular intervals, enabling the determination of trends or fluctuations. Social indicators may also be descriptive measures of social conditions or analytical measures of social well-being with specific interrelationships with other variables. Social indicators are often used to monitor the impacts of large scale social change on the quality of life of residents.

In the present assessment, census data and other social indicator data sets such as those held by Commonwealth and State government agencies (e.g. health, education) were examined to identify the key social indicator variables within Gippsland region and to examine these indicators over time.

In Section 2 'Regional Profile', census data was used as the basis for describing the population and dwelling profiles for the Gippsland RFA region. For each profile 1996 census data was used and an analysis undertaken for the Gippsland RFA region, rural Victoria and selected sub-regions. Profiles for the Gippsland RFA were based on the aggregation of census collector districts (CCDs) which approximated the boundary of the Gippsland RFA region. Profiles for rural Victoria, were provided for the purposes of comparison with the Gippsland RFA region, and included all statistical divisions in Victoria with the exception of the Melbourne statistical division.

Each of the profiles were also described for six sub-regions, as shown in Figure 1.1. In all cases the six sub-regions were defined through the aggregation of census collector district boundaries.

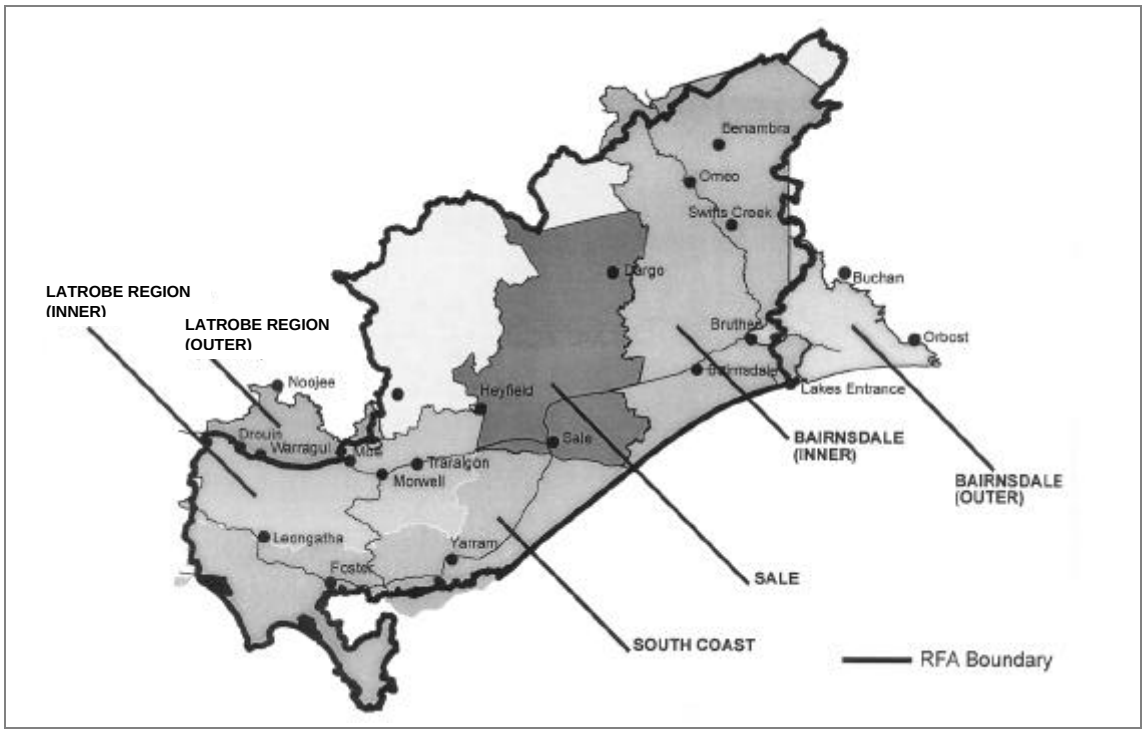

Figure 1.1 Location of sub-regions

Where information was available, time-series analyses were undertaken for the Gippsland RFA region for the census years 1986, 1991 and 1996. In order to ensure comparability of geographic units across each of the three census years, Statistical Local Areas (SLAs) were aggregated to approximate the boundary of the Gippsland RFA region. The 17 SLAs used in the aggregation, and on which all time series analyses were undertaken, are given in Table 1.2. Figure 1.2 shows the boundary of the aggregated 17 SLAs used in the time series analysis and the boundary of the Gippsland RFA region.

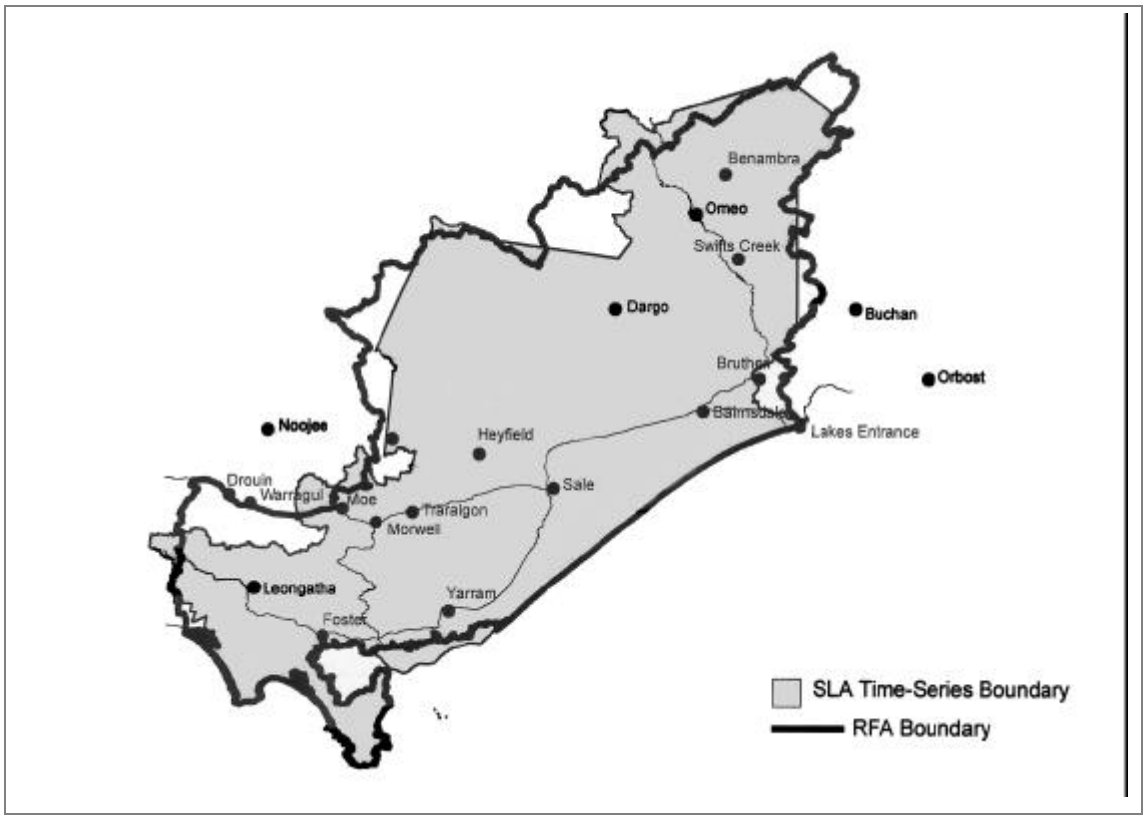

Figure 1.2 SLA time-series boundary

Table 1.2 Statistical Local Areas aggregated in the time-series analysis for the Gippsland RFA region

SLA Name	SLA Name	SLA Name
Baw Baw (Part A)	East Gippsland (Bairnsdale)	East Gippsland (South-West)
East Gippsland (Balance)	Latrobe (Moe)	Latrobe (Morwell)
Latrobe (Traralgon)	Latrobe (Balance)	South Gippsland (Central)
South Gippsland (East)	South Gippsland (West)	Wellington (Alberton)
Wellington (Avon)	Wellington (Maffra)	Wellington (Rosedale)
Wellington (Sale)	Yallourn Works Area	

Source: ABS (1996)
Prepared by: EBC (1999).

1.1.2 Survey methods

The survey methods are designed to deal with the nature of people's thoughts, feelings and perceptions on particular issues. Surveys involve the development of a number of questions/items that utilise predetermined response categories. An individual's

perspectives and experiences can also be collated and assigned numeric codes to assist in analysis.

A major advantage of using survey methods is that they allow a sample of the population to present its views. Survey methods which employ probability sampling techniques allow a random sample of the population, resulting in a relatively accurate representation of the views of the community as a whole. However, survey methods are not without their limitations, the main disadvantage being that such methods are only snapshots in time and are often not an adequate substitute for the dynamic interaction and development of ideas that occur in face-to-face discussions. This difficulty can be overcome if the survey method is used in conjunction with other methods such as in-depth interviews or workshops which provide a means to validate the information obtained.

A number of general survey methods exist. Those methods used in the present assessment are outlined below, namely the mail survey and the telephone interview.

Mail survey

The mail survey is one of the most common means of distributing self-administered questionnaires. Interviewer bias is avoided as the survey is self-administered and can be completed relatively quickly. However, this method has a number of disadvantages in that respondents are unable to clarify questions should they need to and the researcher has little control over how the survey is completed. For example, variability among responses to a given question may exist as respondents may choose to work through the questions in different sequences. Furthermore, one of the main problems associated with the mail survey is response bias. That is, mail surveys tend to exclude respondents with literacy problems and can be intimidating to those with little educational background. In addition, response rates for mail surveys tend to be fairly low (standard response rate of approximately 10%) and thus the degree of error or bias in the sample increases. However, despite these limitations, the mail survey does provide a useful means of obtaining information from people from different backgrounds across a wide geographical area.

Three separate questionnaires were designed for the mail survey of industries in Gippsland. They were:

- a questionnaire to be completed by forest contractors, timber processing industries and forest user businesses (e.g. apiarists, seed collectors, grazing licensees, prospectors and miners);
- a questionnaire to be completed by tourism businesses; and
- a questionnaire to be completed by the employees of forest contractors, forest users, tourism operators and timber mills.

These questionnaires were distributed by mail to timber processing industries, timber harvesting contractors and businesses with apiary, seed, mining, prospecting, roading, firewood and cattle grazing licence interests on public land in the region. Databases

and mailing lists held by Victorian State Government agencies and industry peak bodies were used as the basis for sampling.

Tourism businesses and employee questionnaires were distributed by mail to all tourism businesses who held licences or permits to operate within forest areas in Gippsland.

Information gained from this study method, in conjunction with secondary data from the Australian Bureau of Resource Economics (ABARE 1998), attempts to divided the Gippsland RFA region into distinct regional groupings or clustering of towns. The geographic clustering of towns is known as town resource clusters (TRC). The regional profile, and the analysis of the mail and telephone surveys are based on these TRC regions.

The TRCs for the Gippsland RFA area, consist of four within the region—Bairnsdale (inner), Latrobe Region (inner), Sale and the South Coast. Another two sub-regions were identified adjacent to the Gippsland RFA area—Latrobe Region (outer) and Bairnsdale (outer). Both of these outer sub-regions have several forest based industries accessing forest resources from the Gippsland RFA area and are important in the social analysis.

Further detail on town resource clusters is provided in Section 4 ‘Forest activity and linkages by town resource cluster’.

Community telephone survey

Telephone surveys are often chosen for survey research due to lower cost, enhanced data quality, ease of administration and reduced data retrieval time. Major advantages of such a method are that interviews can be completed quickly and because contacts are made by phone, a greater number of people can be sampled, resulting in a higher response rate. A major drawback, however, involves the problem of selection bias, that is respondents are limited to those who have telephones. While this has been of concern previously, it is now reported that over 95% of all households in Australia have telephones. In addition, there may also be a limit as to how long respondents are willing to remain on the phone. However, techniques in questionnaire construction and interviewing procedure can reduce this problem. It has also been suggested that individuals may be reluctant to provide information to a ‘faceless voice’ (Shaughnessy & Zechmeister 1990).

Telephone sample size and sample selection

The study was based on a sample size of 1100 people, which were drawn from all households within the Gippsland RFA region. A sample of this size permits considerable statistical confidence when making inferences from the sample to a single population.

Simple random sampling was used to identify households within the Gippsland RFA region. As a telephone interview was to be used in undertaking the research the published white pages directory for Victoria was used to randomly select household

phone numbers. All listed phone numbers from within the study area were identified and a random sample of 8800 household phone numbers selected.

In addition to the total sample for the Gippsland RFA region, sub samples within the region were also defined. The sub samples are based on the four TRCs located with the Gippsland RFA area—Latrobe Region (inner), South Coast, Sale and Bairnsdale (inner). Table 1.3 shows the sample counts for each of the four sub samples within the Gippsland RFA region.

Table 1.3 Sample size for sub samples within the Gippsland RFA region

Sample group	Sample count	Sample per cent
Latrobe region	534	48.5
South Coast	146	13.3
Sale	203	18.5
Bairnsdale	217	19.7
Total	**1 100**	**100.0**

Source: EBC (1999).

The sample sizes for each of the four sectors allowed for meaningful inferences to be made to the population within each sector. However, the total sample could not be used in generalising to the total population of residents within Gippsland region, as each sector was not represented in proportion to the total population size.

Telephone questionnaire design

The most important constraint on the design of the questionnaire was that it must be able to be completed through a telephone interview and that the maximum interview duration could be no longer than 15 minutes.

The questionnaire focused on the significance of forest value to the community in the Gippsland region.

The questionnaire was pre-tested on a random sample of 20 respondents in Gippsland. Only minor changes to the questionnaire format were required.

Telephone interview procedures

Twenty-two interviewers were used and each interviewer was given a list of 400 telephone numbers sorted in a random order. Each interviewer was required to commence from the first telephone number and proceed systematically through the list until 50 interviews had been obtained. Interviewers were instructed to make up to three recalls on those phone numbers which were not answered on the first occasion.

The interviewers were instructed to obtain interviews with those respondents aged 15 years and over. Interviewers were required to record responses to all open-ended questions using, as far as practical, verbatim wording and to avoid classifying or coding responses.

Interviews were completed on the weekends of the 7–8 November and 14–15 November 1998, and between the hours of 10.00am and 8.00pm.

1.2 Quantitative data analysis

Quantitative data collected during the course of the assessment was coded and analysed using the Statistical Package for the Social Sciences (SPSS). Depending on the nature of the research problem, different descriptive, univariate and multivariate statistical analyses were undertaken including frequency analysis, multiple response analysis, cross tabulations, analysis of variance (ANOVA) with planned comparisons and factor analysis.

1.3 Qualitative data collection methods

1.3.1 Documentary review

Written materials provide a record of the historical development of the region, and a current profile of key issues. Documents such as government reports, shire directories, consultancy reports, research projects and documented local histories, provide an easily accessible and reliable source of information that is recognised within the communities described. Information was also obtained through informal networks, particularly face-to-face contact, to validate and complement information obtained through other sources.

1.3.2 Informal networking

Informal networking involves both systematically observing and participating in the day-to-day life of communities, organisations and groups. The technique seeks to identify the social factors that shape daily life of communities in the region. Face-to-face relationships with individuals allows a qualitative understanding of important social phenomena to be developed.

Informal networking allows the collection of data on a range of behaviours, a greater variety of interactions and a more open discussion of issues. It is an open-ended, flexible and interactive process, where the data collected is defined and redefined based on field experience and observation. The technique is particularly useful when used in conjunction with other methods.

The main weakness of the method is in assessing the reliability of the data and the time required to obtain and analyse the information collected.

The Forest Community Co-ordinator for Victoria has been extensively involved in fieldwork within Gippsland region throughout the social assessment process.

1.3.3 Personal interviews

The personal interview method allows much more flexibility than the mail survey as respondents are able to clarify questions which may be unclear and the interviewer is able to ask respondents to elaborate on their answers to open-ended questions. In addition, the response rate for such a method is usually relatively high (commonly 80–

85%). However, one of the main problems with the approach is interviewer bias, that is the way in which questions are framed and the probes used to facilitate responses. Interviewers should be a neutral medium through which questions and responses are transmitted. Therefore questions need to be asked in the same way and interviewers must be careful not to introduce ideas that may become part of the respondent's answers. Extensive training and close supervision help to alleviate such problems. Personal interviews may differ in structure from those which are more structured and systematic in nature to those which take on the appearance of normal everyday conversation.

Interviews that are less structured, afford the interviewer the freedom to explore, probe and ask questions on a specified range of topics and issues, and provide more freedom and flexibility in approach. In an unstructured interview, the interviewer decides on the sequence of questions during the course of the interview, increasing the comprehensiveness of the data and making the data collection more systematic. The greatest strength of this approach is that the interviewer is given the liberty to develop conversational style with the interviewee which in turn enables individual perspectives and experiences to emerge more naturally. The main weakness, however, is that salient topics may be omitted and due to interviewer flexibility in questioning, different responses may be obtained. The use of only one interviewer can reduce this problem of incomparability.

1.3.4 Community workshops

Community workshops provide a forum to generate a 'group product' such as lists of issues, conceptual alternatives, impacts or mutually acceptable plans of action. Workshops are best used when there is a specific problem or issue that needs to be addressed. Techniques that may be employed in the workshop process include brainstorming, nominal group process and subgroup discussions. Following the identification of issues, similar techniques can be used to weight or rank issues and investigate ways in which issues can be addressed. The workshop process has a number of strengths. It facilitates maximum flow of information and allows participants to explore solutions to issues or problems. However, depending upon workshop size it may be difficult to keep participants focused on a particular project. Despite these limitations, workshops afford a collective analysis of a problem(s) from people with a diverse range of backgrounds.

A variety of sampling frames have been employed to access participants in the process. Contacts made with participants at a local community level have occurred largely through a process of networking. Networking is one of the most informal of all participatory techniques and begins with contact with key groups or individuals in a community and then 'snowballs' throughout the wider community in a process referred to as 'snowball sampling'. This approach provides an effective means of accessing the formal and informal networks present in a community.

1.4 Qualitative data analysis

There are a variety of techniques which can be used to analyse qualitative data collected through interview and workshop methods. The techniques employed in this assessment included content/theme analysis and analytical induction methods.

1.5 Feedback and evaluation

Results of the social assessment are provided to stakeholders and local communities involved in the process through the publication of this report and through the Forest Community Co-ordinator for Victoria.

1.6 Expert panel assessment

A reference group of social assessment experts was established to provide technical expertise relating to the methodology and approaches adopted by the Social Assessment Unit in the course of its work. Representatives from this group have met regularly since the beginning of the Regional Forest Agreement process, most recently in April 1998. Membership of the panel includes representatives from the scientific and academic sectors:

- Dr Alan Dale
  Regional Planner, CSIRO Tropical Agriculture
  Cunningham Laboratory
  Queensland

- Dr Jacquie Tracey
  Senior Project Officer, Industry Development
  Forestry Structural Adjustment Unit
  Department of Land and Water Conservation
  Sydney, New South Wales

- Dr Brian Bishop
  Associate Professor, School of Psychology
  Curtin University of Technology
  Perth, Western Australia

- Dr Marcus Lane
  Postdoctoral Research Fellow
  Department of Landscape and Environmental Planning
  RMIT
  Melbourne, Victoria

All panel members have extensive research and applied experience within the social impact assessment field and have published extensively in national and international fora.

2 Regional profile

2.1 Geographic description

The Gippsland region covers over 2.6 million hectares of Victoria. It's boundaries include the Great Dividing Range to the north, the Timbarra River to the east, and Bass Strait to the south. The region includes the Victoria's central Gippsland area, and encompasses a network of State forests, and numerous Parks and Reserves, including the Mitchell, Alpine, Tarra Bulga and Wilson's Promontory National Parks. The region is also noted for its rivers and waterways including the Nicholson, Macalister and Thomson rivers, which lead into the Lakes area around Bairnsdale and Lakes Entrance.

The Gippsland RFA region extends across the following municipalities:

- Wellington
- Latrobe
- South Gippsland
- Yallourn Works Area
- Bass Coast (partial)
- Baw Baw (partial)
- Delatite (partial)
- Alpine (partial)
- Towong (partial)
- East Gippsland (partial)

2.1.1 Landscape and climate

The climate in Gippsland is temperate, with patterns of precipitation and temperature influenced by geography, topography, altitude and proximity to the coast.

The Great Dividing Range is the dominant landform feature to the north of the region. It has a significant influence on weather patterns and this in turn affects vegetation distribution and fire risk conditions. Dry 'rainshadow' valleys contrast with adjacent mountains that are characterised by wet montane forests and, at higher elevations, sub-alpine woodlands and alpine herbfields. Southern highlands of the Strzelecki Ranges and Wilsons Promontory, which both have peaks of over 700 m, also receive high rainfall between 900 mm and 1 500 mm. Rainshadows caused by the ranges occur in the Mitchell and Tambo River valleys and on the Gippsland plains.

Temperature varies according to proximity to the coast and altitude. The plains and coastal areas are subject to mild winters. Low-lying, inland towns such as Sale and

Maffra experience the highest temperatures during summer. Mild winters are experienced on the plains and in coastal areas. Higher winter temperatures compared to other parts of the region are a result of winds becoming warmer when descending from the mountains (Föhns effect) (LCC 1982).

2.1.2 Size and tenure

The Gippsland region covers approximately 2.6 million hectares. Public land comprises 1.4 million hectares, or 54 per cent of the area, and is covered mostly by native forest. The region is known for its mountain landscapes, diverse range of flora and fauna, timber resources, tourism and recreational opportunities and the high quality of water in its rivers and streams.

State forests occupies 806 000 hectares; more than half of the total public land. Conservation reserves, including National Parks, State Parks and Flora and Fauna Reserves, occupy 35 per cent of the public land, or about 514 000 hectares. The remaining public includes other public land, other parks and reserves, and water bodies.

2.2 Historic description

The original inhabitants of the Gippsland region were the Kurnai (Gunai) nation which consisted of five tribes (Morgan 1997) — the Bratauolung, Tatungolong, Braiakolung, Brabrolung and Kroatungolung (mostly in East Gippsland). These communities lived mainly around lakes, river systems, beaches and estuaries that were rich sources of food, moving up the rivers into the forests during the winter months. In the north, the Kandagora-mittung or Karndtarrngkorramidtung clan (part of the Jaitmathang or Ya-idtmidtung tribe) lived on the Lake Omeo plains, Limestone Creek, Livingstone Creek and the Tambo headwaters. Mountainous areas were generally avoided because of their harsh climates, however journeys were made to the Alps during warmer months in search of the Bogong Moth.

The culture of Kurnai communities was based on an intimate and dynamic relationship with forest ecosystems. Timber and bark were the primary materials for creating tools, fire, shelter and transport, as well as featuring as a spiritual symbol in the dreaming and rituals of the Kurnai. The forest provided a nutritious and varied diet to the Kurnai, who were dependent upon a wide range of animals and plants as a food source. The Kurnai also used forest products for medicinal purposes and for weapons. Possum skins were used to make clothing, rugs, water containers, musical instruments and balls for sport. Possum and kangaroo bones were used in making tools and weapons (Nelson 1999). The Kurnai shaped the environment through their activities. Fire was used to encourage regeneration, particularly of edible plant foods, and to expose edible roots.

In January 1798, George Bass led the first European expedition into Gippsland, discovering Wilsons Promontory and naming Sealers Cove. By 1805, a sealing industry had developed along the coast. However, by 1830, seals were so rare the

industry collapsed. Whaling industries were also significant during this time however inland settlement was hindered by densely forested coastal ranges.

To the north of Gippsland, pressure for new grazing areas came as settlement extended on the Monaro plains in New South Wales. Extensive areas of grazing land on the Omeo plains were reached in 1835 by George McKillop, Livingstone and McFarlane, while Buckley had explored the Bindi and Tongio area by 1837 (LCC 1977). Angus MacMillan, in his search for new grazing land, formed a station at Ensay in 1839. He then followed the Tambo River to the plains, reaching the coast in 1841 at Port Albert near Corner Inlet (LCC 1982c). Later, Count Paul Strzelecki followed McMillan's path but continued through south Gippsland to Westernport Bay, crossing the Strzelecki Ranges and opening a route to Melbourne.

By the late 1840s, access to Gippsland was achieved by two means. Many settlers entered via the overland route from New South Wales, while others arrived at Port Albert by sea, generally from Melbourne (Abbott *et al*. 1993). Port Albert became the first centre of trade and flourished until inland routes to Melbourne were established in the 1860s.

Prior to 1840, the Kurnai had had intermittent contact with Europeans, including escaped convicts, shipwreck survivors and sealers. MacMillan and Strzelecki used Aboriginal trackers. However, settlement during the 1840s soon led to violence, with attacks by the Kurnai provoking reprisals, including numerous massacres.

A Central Board for the Protection of Aborigines was appointed in 1860 to oversee the interests of the Aborigines in the Colony of Victoria. This Board established a number of missions, including Ramahyuck on the Avon River near Lake Wellington, and Lake Tyers. Legislation that forced many off the missions led to separation of families and a further disruption of Kurnai culture.

Despite the devastating impact of colonisation on the Kurnai nation, Kurnai people — now known as Gunnai (Kurnai) people — and Aboriginal people from other groups remained in the area working on farming properties and in forest related industries such as timber mills. Gunnai (Kurnai) people currently live in Gippsland maintaining their cultural identity and sense of community.

Gold discoveries in the 1850s at Omeo, Swifts Creek and Cassilis caused rapid population increases while trading associated with discoveries at Walhalla and Grant saw the development of towns such as Sale, Maffra, Stratford and Heyfield (Abbott *et al*. 1993). Over the next 30 years, gold was found at Crooked River, Mt Wills, Upper Buckwong River and Buenba Flat, initially concentrating on alluvial fields. Reef mining began in the 1860s, which led to the growth of towns including Tabberabbera, Bullumwaal, Deptford and Dargo (LCC 1982c). Miners from Gippsland also used the track cut by stockmen to reach the Buckland and Harrietville goldfields in the North East.

Mining methods included sluicing, dredging and quartz reefing. These resulted in significant and widespread disturbance to forests and streams. Forests were cleared to supply the timber that lined the shafts and fuelled steam boilers, while prospectors burned the heavily timbered spurs to make visible surface quartz deposits.

Coal mining commenced in 1826 (Morgan 1997) and since then it has been a significant industry in the Gippsland region. Brown coal finds in the Haunted Hills in 1873 led to the discovery of the vast coal resources below the Latrobe Valley. Development commenced in the 1920s, with the State Electricity Commission constructing a brown coal-fired electricity generation station at Yallourn. Other power stations were established at Hazelwood, Yallourn and Loy Yang (Abbott *et al*. 1993).

During the 1860s, four major Land Acts transformed the region from a grazing to an agricultural economy. These 'free selection' acts encouraged new settlers and reduced the squatters' runs. Initially, sheep and cattle were the basis of the agricultural industry. However, production also included a range of produce such as wheat, barley, hops, tobacco, maize and potatoes. The construction of Lake Glenmaggie in 1926 led to the establishment of the Macalister irrigation district (LCC 1982c).

The late 1870s to 1880s was a time of development for the region. Construction of the Main Gippsland Railway in the 1870s connecting Melbourne to Sale gave settlers access to the formerly inaccessible forests of the western and southern parts of Gippsland. A means of land transport was essential to trade. The Great Southern Railway was completed in 1892, extending from Dandenong to Port Albert. Construction of the line used timbers cut from the Mullungdung State Forest. A road linking Melbourne and Sale had been constructed by 1879 and a rail link to Bairnsdale was opened in 1888. With demand for construction timbers and fuel from the railway and mining industries, the timber industry expanded rapidly in the late 1800s.

By 1900, parts of the Strzelecki Ranges had been cleared and settled for agriculture. The ranges were cleared by ringbarking, felling and burning, with some timber used for fencing and construction. Wildfires in 1898 destroyed much of the forest on the Strzeleckis, in some ways aiding the clearing attempts (FCV 1976). However, many blocks on the rugged eastern side of range had been abandoned by 1905. Some areas were taken up as soldier settlements at the end of the First World War, but the depression in the 1930s saw farmers again forced off the 'Heartbreak Hills' (Abbott *et al*. 1993). The Crown reclaimed many abandoned selections.

During the gold rushes, the number of sawmills operating in Victoria increased dramatically. Timber cutting in the north of the region intensified during the gold rushes. Forests surrounding towns such as Walhalla were intensively cut for mine supports, heavy construction and fuel that left many hillsides denuded (Abbott *et al*. 1993). The timber was felled by axe and crosscut saw, then sawn into manageable sections for transportation to the mill by horse and bullock teams or timber tramway. The first sawmills were located close to their log supply. Power was supplied by steam, using stationary engines and water-powered mills.

A Royal Commission on Forests that sat from 1897 to 1901 led to the *Forests Act 1907* which established the Department of Forests. This legislation was strengthened by the *Forests Act 1918,* which established the Forests Commission of Victoria. The 1918 Act gave the Commission the revenue to protect, conserve and develop the indigenous forest, and maintain an adequate area of softwood plantations.

In 1930, a mill was established at Mt Baldhead near Swifts Creek and, five years later, logging commenced in the Mt Wills area (LCC 1977). Alpine Ash *(Eucalyptus*

delegatensis) was regarded as a good substitute for the preferred Mountain Ash (*Eucalyptus regnans*).

In 1946, mills were constructed at Swifts Creek and Omeo and, by 1949 Heyfield was established as an important sawmilling centre with log allocations being granted in the Connors Plain area, north west of Licola. By 1956, ten mills were located in Heyfield, drawing on this ash resource, and taking advantage of a climate that was beneficial for air-drying (LCC 1982).

The Royal Commission, following the 1939 bushfires, directed that sawmills should no longer be sited in the forest. This required the improvement of the road system for hauling logs to urban centres. Licensees became responsible for the construction of the roads in their area. The improvement in roads and an advance in technology after the Second World War encouraged the increased mechanisation of logging operations.

Residents of the Gippsland region also used the forests for recreation. Organised bushwalking tours, which began in the late 1890s, had become well established by the 1920s and boomed in the 1930s. During this time, the Victorian Railways organised many bushwalking tours, visiting remote areas such as Dargo, Mt Howitt and Crooked River (Siseman 1985).

Alpine recreation on an organised basis began in the late 1920s. Mt Hotham snowfields were skied from around 1925 and accommodation was available at Hotham Heights and Mt St Bernard (LCC 1977). An alpine resort was formally established in 1958 at Mt Hotham and it continues to be a popular destination, with around 97 000 people visiting the resort each year.

Wilsons Promontory National Park was temporarily reserved in 1898, and permanently reserved in 1905, making the Promontory Victoria's oldest national park. Bulga and Tarra Valley National Parks were reserved in 1904 and 1909 respectively, protecting vegetation communities which were characteristic of the Strzelecki Ranges prior to European settlement. These, and other parks, reserves and State forest, have a history of recreational use including picnicking, bushwalking, horse riding and nature observation. Across the region, the popularity of these activities and others such as four-wheel driving, trail bike and mountain bike riding has steadily increased.

2.3 Review of land use decisions

2.3.1 Change in forest land use

Throughout this century, forest related industries have experienced varying degrees of economic growth and diversification due to a range of economic, technological, and social changes. Within the Gippsland region, changes in government regulation of land use and forest management practices have required significant readjustment by these industries with an associated contraction in employment. This section outlines the major changes and the economic and social implications of land use and forest policy developments, and examines community and stakeholder perceptions of social change in the Gippsland region.

2.3.2 Review of land use policy and social impacts

In the past two decades, debate over environmental protection and sustainable resource utilisation in Victoria has intensified. In response, a number of inquiries/strategies have been initiated to address the balance between environmental protection and industry development. These include numerous Land Conservation Council (LCC) studies, the Timber Industry Inquiry, Victoria's Timber Industry Strategy (1986) including the Code of Forest Practices (1989, 1996), the State Plantations Impact Study (1990) and the National Forest Policy Statement (1992).

In the 1970s, 1980s and 1990s, the LCC conducted a series of land use studies in Gippsland. These studies included regional investigations and Statewide theme investigations such as wilderness. Each study considered the full range of values and uses on public land in the region, including assessment of socio-economic impacts. The studies resulted in recommendations to the Victorian Government which sought to balance the needs and aspirations of the community in relation to public land, taking into account the uses and values of all land in the region.

The LCC collected a large volume of social and economic information on a range of values and uses in Gippsland and took this into account in making its recommendations in the various studies. This information was also used to minimise the social and economic impacts of various recommendations on individual enterprises and local communities. For example, recommendations relating to the establishment of the Alpine National Park provided for a phase out of timber harvesting, with seasonal grazing to continue in the Park but phased out in some areas.

The delineation of boundaries for conservation reserves of various kinds has also been undertaken to ensure the protection of significant values while aiming to minimise any adverse impacts on other uses and values. For example, the establishment of wilderness areas can potentially impact on recreational activities that are incompatible with wilderness protection. The design of wilderness areas was undertaken to ensure that other activities such as four wheel driving, fishing, deer hunting and horse riding have not been unduly affected, especially where these activities are conducted by commercial tour operators.

However, some social and economic impacts at various levels have resulted from the land use changes arising from the LCC studies and these have been clearly documented in the Council's recommendations for Government prior to it making the final land use decisions. The cumulative impacts have also been documented and taken into account in subsequent decisions. It is also important to note that some activities on public land were not sustainable in the longer term and there needed to be a phase down. While such phase downs do have social and economic impacts, the strategy adopted to achieve the required outcome has been tailored to minimise those impacts. The detail of these strategies has been worked out with those directly involved as one particular strategy may not be relevant to all sectors of industry communities or a region.

In 1986, following the Timber Industry Inquiry, the Victorian government finalised the Timber Industry Strategy (TIS). The strategy specified the requirement for sustainable management practices in relation to timber harvesting. Economic

development in the timber industry was based on Value Adding to gain maximum benefit from wood harvested, and through industry investment in technology, to increase its competitiveness. Fifteen year sawlog licences to provide resource security and to encourage investment by the industry were subsequently issued.

A social assessment of the impact of the TIS was undertaken on a statewide basis. This assessment indicated that reducing statewide harvesting to sustainable levels would result in some employment losses, but not within the Gippsland region. The development of the softwood industry, the encouragement of value-adding and the extension of the sale and processing of residual wood, would offset any employment losses. The government estimated that while 'labour productivity increase' would lead to a loss of 9000 jobs in the industry, overall employment levels on a statewide basis would increase by 2% in the 15 year period (Government of Victoria 1986).

In accordance with projected softwood growth specified in the TIS, the State government initiated the 1988 State Plantations Impact Study to review the concerns expressed by rural communities about the State's plantation program and to recommend an implementation program which would be of the greatest benefit to the community. Income and output multipliers derived from a detailed 1983 study of economic linkages in the Latrobe Valley, were used to measure the economic effects of converting farmland to plantations.

Following the proclamation of the Alpine National Park in 1989, a management plan was developed. The planning process which informed the management plan involved consultation with the community. A range of voluntary codes of ethics were developed to educate and encourage visitors to minimise the environmental and social impacts of recreational activities, rather than imposing restrictions on visitor numbers and activities. Uses such as alpine grazing continued to be managed through permit conditions (Department of Conservation and Environment 1992).

In the Gippsland region, interest in natural resource management within water catchment areas has developed in response to visible land or resource degradation problems (West Gippsland Regional Catchment and Land Protection Board 1997, East Gippsland Regional Catchment and Land Protection Board 1997).

The West Gippsland Regional Catchment Strategy assessment of catchment conditions incorporated a Multi Criteria Analysis to assess the value of impacts caused by a range of land and water degradation issues. This included a social impact analysis, economic impact analysis and an environmental impact analysis. The social impact analysis examined the long-term effects on health, well being and quality of life. The criteria used were: resource base for future generations, employment, regional viability, health and aesthetics and cultural heritage. The analysis of issues across the whole of the region identified a number of priorities such as water quality in consideration of the impacts on economic, environmental and social values.

As identified above, tourism and recreation, including those associated with the development and operation of Alpine Resorts, issues were given explicit attention in the LCC's Alpine special investigation (1982), the Wilderness study (1991) and subsequent management plans.

In a more recent study undertaken for the Victorian Department of Natural Resources and Environment (Read Sturgess & Associates and Henshall Hansen Pollock 1995), both recreation and tourism were identified as important in State forest areas in the Gippsland region. In 1994, there was a total of 347 000 visitor days in State forest areas in Gippsland, contributing between $6.9 and $17.4 million per year to the regional economy. The study projected that the Alpine National Park would advance the profile of the region as a tourist destination and lead to increased recreational use in surrounding State forests.

Places of cultural value include Aboriginal places, historic places, and places of social and aesthetic value. Social impact may potentially be derived from changes to such places via an alternation in use patterns, management or access. For example, any change in forest use or management which adversely affects the state of places of traditional or historic cultural values, may have an associated social impact on groups within the community such as Aboriginal peoples and other forest users. Similarly, adverse changes to the access or management of places of social or aesthetic value, or of historic value, may bear social impact for communities locally or regionally. The social implications of land use or management change on cultural values have been considered in previous LCC studies, the Alpine Park management plan and other park plans for the region.

2.4 Social-demographic profile

2.4.1 Population and housing

In 1996, the total population of the Gippsland region was 174 073 people. Much of the population is located in the Latrobe region (inner). Traralgon, with a population of 18 993, is the largest town in Gippsland. Moe (15 512), Morwell (13 823) and Sale (13 366) are also large population centres in the region. Bairnsdale, with a population of 10 890, is the largest town in the east of the region. Numerous other towns exist across the region including Lakes Entrance (5248), Leongatha (4144), Yarram (1807), Mirboo North (1223), Omeo (298) and Swifts Creek (228) (ABS 1996).

In general, larger population centres are located on the Princes Highway, the major travel route through the region.

Table 2.1 shows the population and housing characteristics for the Gippsland RFA region and specific sub-regions. Comparisons across sub-regions, the Gippsland RFA region and rural Victoria shows only minor variation in the percentage of males and females within the population and the occupancy rate for dwellings.

Table 2.1 Population and housing characteristics

Population and dwelling characteristics	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
Population								
Males	46 869 (49.3%)	10 981 (49.6%)	9 485 (50.3%)	13 466 (49.5%)	14 493 (49.6%)	2 867 (49.2%)	86 529 (49.7%)	667 275 (49.6%)
Females	48 236 (50.7%)	11 172 (50.4%)	9 374 (49.7%)	13 723 (50.5%)	14 727 (50.4%)	2 956 (50.8%)	87 544 (50.3%)	677 077 (50.4%)
Total	95 105 (100%)	22 153 (100%)	18 859 (100%)	27 189 (100%)	29 220 (100%)	5 823 (100%)	174 073 (100%)	1 344 352 (100%)
Housing								
Occupied	34 746	8 419	7 203	9 779	11 462	2 276	63 559	494 621
Unoccupied	4 000	1 109	3 984	1 313	3 648	713	13 224	85 107
Total	38 746	9 528	11 187	11 092	15 110	2 989	76 783	579 728
Persons per private dwelling	2.7	2.6	2.6	2.8	2.5	2.6	2.7	2.7

Data source: ABS (1996)
Prepared by: EBC (1999)

For the Gippsland RFA region as a whole there has been little change in the size of the population between the 1986 and 1996 census. Although the population has remained relatively constant throughout this 10 year interval, there has been an increase in the number of occupied dwellings, leading to reduced occupancy rates per dwelling as shown in Table 2.2.

Table 2.2 Time series: population and dwelling characteristics

Population and dwelling characteristics	1986	1991	1996
Population			
Males	76 184 (50.8%)	77 473 (50.1%)	75 433 (50.3%)
Females	73 738 (49.2%)	77 170 (49.9%)	76 396 (49.7%)
Total	149 922 (100.0%)	154 643 (100.0%)	151 839 (100.0%)
Housing			
Occupied	49 938	54 165	56 351
Unoccupied	8 474	9 904	11 924
Total	58 412	64 069	68 275
Persons per private dwelling	3.0	2.8	2.7

Note: For the purpose of the time-series analysis population and dwelling totals are based on the aggregation of SLAs
Data source: ABS (1996)
Prepared by: EBC (1999)

2.4.2 Age structures

Age and stage in family life cycle, as shown in Table 2.3, shows an almost identical age and life cycle profile for the Gippsland RFA region when compared to rural Victoria. Each of the six sub-regions also have very similar age and life cycle profiles with the exception that Bairnsdale (inner) and to a lesser extent the South Coast and Bairnsdale (outer) sub-regions have a higher percentage of pre-retirement and elderly residents when compared to the Gippsland RFA region and rural Victoria.

Table 2.3 Community age structures

Age and life cycle stage	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
0–4 Pre-School	7 649 (8.2%)	1 718 (7.8%)	1 313 (7.0%)	2 149 (8.0%)	2 002 (7.0%)	475 (8.1%)	13 260 (7.8%)	100 138 (7.6%)
5–12 Primary School	13 256 (14.1%)	2 907 (13.3%)	2 491 (13.3%)	3 921 (14.6%)	3 529 (12.3%)	763 (13.0%)	23 528 (13.7%)	171 412 (13.0%)
13–17 High School	6 341 (6.8%)	1 680 (7.7%)	1 434 (7.6%)	2 103 (7.8%)	1 926 (6.7%)	502 (8.6%)	11 543 (6.7%)	84 073 (6.4%)
18–24 Young singles/couples	8 646 (9.2%)	1 850 (8.5%)	1 114 (5.9%)	2 124 (7.9%)	1 878 (6.5%)	322 (5.7%)	14 369 (8.4%)	115 798 (8.8%)
25–39 Young/middle families	21 092 (22.5%)	4 618 (21.1%)	3 566 (19.0%)	5 992 (22.4%)	5 307 (18.5%)	1 156 (19.7%)	37 162 (21.7%)	285 117 (21.6%)
40–49 Mature families	13 826 (14.8%)	3 249 (14.8%)	2 986 (15.9%)	4 115 (15.4%)	4 150 (14.4%)	809 (13.8%)	25 594 (15.0%)	194 312 (14.7%)
50–64 Pre-retirement	12 049 (12.9%)	3 038 (13.9%)	3 160 (16.8%)	3 346 (12.5%)	4 989 (17.4%)	958 (16.3%)	23 896 (14.0%)	189 471 (14.4%)
65+ Elderly	10 830 (11.6%)	2 813 (12.9%)	2 712 (14.4%)	3 023 (11.3%)	4 960 (17.3%)	884 (15.1%)	21 665 (12.7%)	179 037 (13.6%)
Total	93 689 (100%)	21 873 (100%)	18 776 (100%)	26 773 (100%)	28 741 (100%)	5 869 (100%)	171 017 (100%)	1 319 358 (100%)

Note: Excludes overseas visitors.
Data source: ABS (1996)
Prepared by: EBC (1999)

Table 2.4 shows that since 1986 there has been an increase in the number of residents over 40 years of age and some decline in the number of young families and residents below 40 years of age within the Gippsland RFA region.

Table 2.4 Time series: community age structures

Age	Life cycle stage	1986		1991		1996	
0–4	Pre-School	13 455	(8.5%)	13 204	(8.1%)	11 591	(7.3%)
5–12	Primary School	20 612	(13.1%)	21 560	(13.3%)	20 566	(12.9%)
13–17	High School	21 735	(13.8%)	20 446	(12.6%)	20 375	(12.8%)
18–24	Young singles/couples	15 694	(10.0%)	14 668	(9.0%)	12 405	(7.8%)
25–39	Young/middle families	36 157	(23.0%)	35 614	(21.9%)	31 647	(19.8%)
40–49	Mature families	16 117	(10.2%)	19 968	(12.3%)	22 368	(14.0%)
50–64	Pre-retirement	19 480	(12.4%)	19 805	(12.2%)	21 343	(13.4%)
65+	Elderly	14 216	(9.0%)	16 989	(10.5%)	19 179	(12.0%)
Total		157 466	(100%)	162 254	(100%)	159 474	(100%)

Note: Excludes overseas visitors.
Data source: ABS (1996)
Prepared by: EBC (1999)

2.4.3 Education

Table 2.5 shows the age residents left school and the type of educational institution they are currently attending. There is little difference in the educational profile of the population within the Gippsland RFA region to that of the population within rural Victoria. There is also little variation across each of the six sub-regions in relation to the educational profiles of residents. There is an indication of a higher percentage of residents leaving school under 15 years of age in the Bairnsdale (outer) sub-region, when compared to other sub-regions, and also some indication of a higher percentage of residents attending universities or other tertiary institutions within the Latrobe Region (inner) sub-region.

Table 2.5 Educational profiles

Education	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
Education								
Left school under 15 years	12 545 (17.7%)	3 037 (18.2%)	2 525 (17.7%)	3 470 (17.3%)	4 253 (18.7%)	926 (20.9%)	23 055 (17.6%)	182 676 (17.7%)
Did not go to school	215 (0.1%)	75 (0.4%)	28 (0.2%)	53 (0.3%)	71 (0.3%)	21 (0.5%)	376 (0.3%)	3 796 (0.4%)
Total aged 15+	71 035 (100.0%)	16 710 (100.0%)	14 250 (100.0%)	20 080 (100.0%)	22 787 (100.0%)	4 418 (100.0%)	131 231 (100.0%)	1 028 774 (100.0%)
Type of educational institution attending								
Pre-Primary	1 483 (1.6%)	289 (1.4%)	285 (1.6%)	440 (1.7%)	405 (1.5%)	92 (1.7%)	2 653 (1.6%)	19 644 (1.5%)
Primary	11 045 (12.2%)	2 462 (11.6%)	2 135 (12.0%)	3 325 (12.8%)	2 908 (10.6%)	628 (11.4%)	19 677 (11.9%)	143 053 (11.2%)
Secondary	7 764 (8.6%)	1 931 (9.1%)	1 574 (8.8%)	2 365 (9.1%)	2 253 (8.2%)	406 (7.4%)	14 315 (8.7%)	106 811 (8.4%)
TAFE	1 890 (2.1%)	381 (1.8%)	200 (1.1%)	527 (2.0%)	552 (2.0%)	80 (1.5%)	3 300 (2.0%)	27 467 (2.2%)
University or other tertiary	2 536 (2.8%)	370 (1.7%)	147 (0.8%)	342 (1.3%)	227 (0.8%)	28 (0.5%)	3 398 (2.1%)	29 418 (2.3%)
Other	383 (0.4%)	103 (0.5%)	45 (0.3%)	131 (0.5%)	104 (0.4%)	32 (0.6%)	680 (0.4%)	5 362 (0.4%)
Not attending	65 471 (72.3%)	15 627 (73.8%)	13 448 (75.4%)	18 750 (72.4%)	21 052 (76.5%)	4 233 (77.0%)	121 176 (73.4%)	944 460 (74.0%)
Total[1]	90 572 (100%)	21 163 (100%)	17 834 (100%)	25 880 (100%)	27 501 (100%)	5 499 (100%)	165 199 (100%)	1 276 212 (100%)

Note: Based on persons aged 15 years and over
[1]Excludes overseas visitors and persons not indicating an institution attending.
Data source: ABS (1996). Prepared by: EBC (1998)

Although there is no comparable inter-census information on the age residents left school, Table 2.6 shows the percentage of residents attending different types of educational institutions between 1986 and 1996. This table shows that although there has been some decline during the last 10 years in the number of residents attending pre-primary, and secondary educational institutions. There has nevertheless been an increase in the number of residents attending TAFE and university or other tertiary institutions.

Table 2.6 Time series: educational profiles

Type attending	1986		1991		1996	
Pre-Primary	2 968	(2.1%)	2 718	(1.8%)	2 268	(1.6%)
Primary	16 801	(12.0%)	17 463	(11.8%)	17 220	(11.9%)
Secondary	12 974	(9.3%)	12 807	(8.7%)	12 532	(8.7%)
TAFE	2 390	(1.7%)	2 525	(1.7%)	2 734	(1.9%)
University or other tertiary	1 725	(1.2%)	2 815	(1.9%)	3 027	(2.1%)
Other	517	(0.4%)	832	(0.6%)	579	(0.4%)
Not attending	102 447	(73.3%)	108 480	(73.5%)	106 003	(73.4%)
Total[1]	139 822	(100.0%)	147 640	(100.0%)	144 363	(100.0%)

Note: Based on persons aged 15 years and over
[1]Excludes overseas visitors and persons not indicating an institution attending.
Data source: ABS (1996). Prepared by: EBC (1998)

2.4.4 Place of birth

Table 2.7 shows that 88% of residents within the Gippsland RFA region were Australian born, with 6% born overseas in English speaking countries and 6% born in non-English speaking countries. The overseas percentages were slightly higher than Rural Victoria. Some variation was also found across sub-regions with the Latrobe Region (inner) having more residents born overseas, especially from non-English speaking countries.

Table 2.7 Place of birth

Place of birth	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
Australian born	79 160	18 895	16 291	23 751	25 257	5 199	147 475	1 164 518
	(86.3%)	(88.2%)	(89.5%)	(90.0%)	(90.2%)	(91.3%)	(87.9%)	(89.8%)
Overseas born	12 616	2 519	1 902	2 647	2 744	486	20 326	132 805
	(13.7%)	(11.8%)	(10.5%)	(10.0%)	(9.8%)	(8.7%)	(12.1%)	(10.2%)
Main English speaking	5 855	1 302	1 058	1 449	1 593	251	10 180	65 530
	(6.4%)	(6.1%)	(5.8%)	(5.5%)	(5.7%)	(4.5%)	(6.1%)	(5.1%)
Other countries	6 761	1 217	844	1 198	1 151	235	10 146	67 275
	(7.4%)	(5.7%)	(4.6%)	(4.5%)	(4.1%)	(4.2%)	(6.0%)	(5.2%)
Total[1]	91 776	21 414	18 193	26 398	28 001	5 605	167 801	1 297 323
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

[1]Excludes overseas visitors and persons not indicating country of birth.
Data source: ABS (1996)
Prepared by: EBC (1998)

Overall, Table 2.8 shows a small increase in the percentage of Australian born residents within the Gippsland RFA between 1986 and 1996 with an associated decrease in residents born overseas.

Table 2.8 Time series: place of birth

Place of birth	1986		1991		1996	
Australian born	128 073	(86.4%)	132 695	(87.1%)	127 939	(87.4%)
Overseas born	20 167	(13.6%)	19 620	(12.9%)	18 455	(12.6%)
Main English speaking	9 886	(6.7%)	9 776	(6.4%)	9 020	(6.2%)
Other countries	10 281	(6.9%)	9 844	(6.5%)	9 435	(6.4%)
Total	148 240	(100.0%)	152 315	(100.0%)	146 394	(100.0%)

Note: Based on persons aged 15 years and over
[1]Excludes overseas visitors and persons not indicating a country of birth.
Data source: ABS (1996).
Prepared by: EBC (1998)

2.4.5 Indigenous community

Table 2.9 shows the Aboriginal and Torres Strait Islander population for the Gippsland RFA region and specific sub-regions. Within the Gippsland RFA region there were 1727 persons of Aboriginal and Torres Strait Islander origin, which represented approximately 1% of the total population. The highest concentration of Aboriginal and Torres Strait Islanders was found in the Bairnsdale Inner (2%) and Bairnsdale Outer (6%) TRCs.

Between 1986 and 1996, there has been a gradual increase in the Aboriginal and Torres Strait Islander population relative to the population within the Gippsland RFA region, rising from 0.6% of the population in 1986 to 1% of the population in 1996.

Table 2.9 Aboriginal and Torres Strait Islander origin

Aboriginal and Torres Strait Islanders	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
ATSI origin	806	145	58	250	636	331	1 727	13 266
	(0.8%)	(0.6%)	(0.3%)	(0.9%)	(2.2%)	(5.7%)	(1.0%)	(1.0%)
Total population	95 105	22 153	18 859	27 189	29 220	5 823	174 073	1 344 352
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

Data source: ABS (1996).
Prepared by: EBC (1998).

The Aborigines who inhabited the Gippsland and East Gippsland region were of the Mother Tribe, the Gunai/Kurnai. The Gunai/Kurnai people had a complex family structure which played a significant part in their existence. They used the land and extracted a multiplicity of food and implements from its natural resources. The social system and a close spiritual link with features of the environment, enabled continuity of their existence for thousands of generations.

During 1972, the East Gippsland Aboriginal Women's Group (some 67 members) was formed in an attempt to bring about changes to improve the poor health and housing situations experienced by Aboriginal families throughout East Gippsland. Today the Gippsland and East Gippsland Aboriginal Co-operative, which is based in Bairnsdale, continues to grow to meet the needs of approximately 1500 people in the Aboriginal community. The Co-operative has a long-term goal of economic dependence. It aims to decrease the amount of Government funding while increasing its level of economic independence to a point where it becomes self-sufficient. These principles are in keeping with National Aboriginal goals of Self Determination and Management. Today it employs approximately 73 full-time and part-time staff to service the community in many diverse and varying ways through some 15 areas and programs such as medical and dental services, education, youth programs, their community and cultural complex, housing and elders services.

Breaking down barriers and participating in the community mainstream is a strong goal. The 'Keeping Place' is an important community contribution and is open to all people to experience the collection of material which shows Gunai/Kurnai history. In the local newspaper, Aboriginal current affairs and information is conveyed through the 'Message Stick' column. Increased opportunity of housing and employment within the mainstream community is a high priority.

Kurnai Park is a 120 hectare forest reserve eight kilometres northeast of Bruthen, and is leased from the Department of Natural Resources and Environment. The park will be developed to include self-contained cabins, dormitory-style hostel accommodation, a conference centre, camping area with toilet/shower blocks, barbecue and recreation areas, a youth cottage/caretaker's residence and workshops. Several enterprise/training activities already operate in Kurnai Park (firewood, fencing) with more proposed (horticulture-native plant seed collection and propagation, and adventure activities) (Gippsland and East Gippsland Aboriginal Co-operative l999).

There are seven main Aboriginal communities within the Gippsland region: Moogji Aboriginal Council; Lakes Entrance Aboriginal Corporation; Gippsland and East Gippsland Aboriginal Cooperative; Wurundjeri Tribal Land Council; Central Gippsland Aboriginal Health and Housing Cooperative; West Gippsland Aboriginal Cooperative; and Shepparton Aboriginal Arts Council.

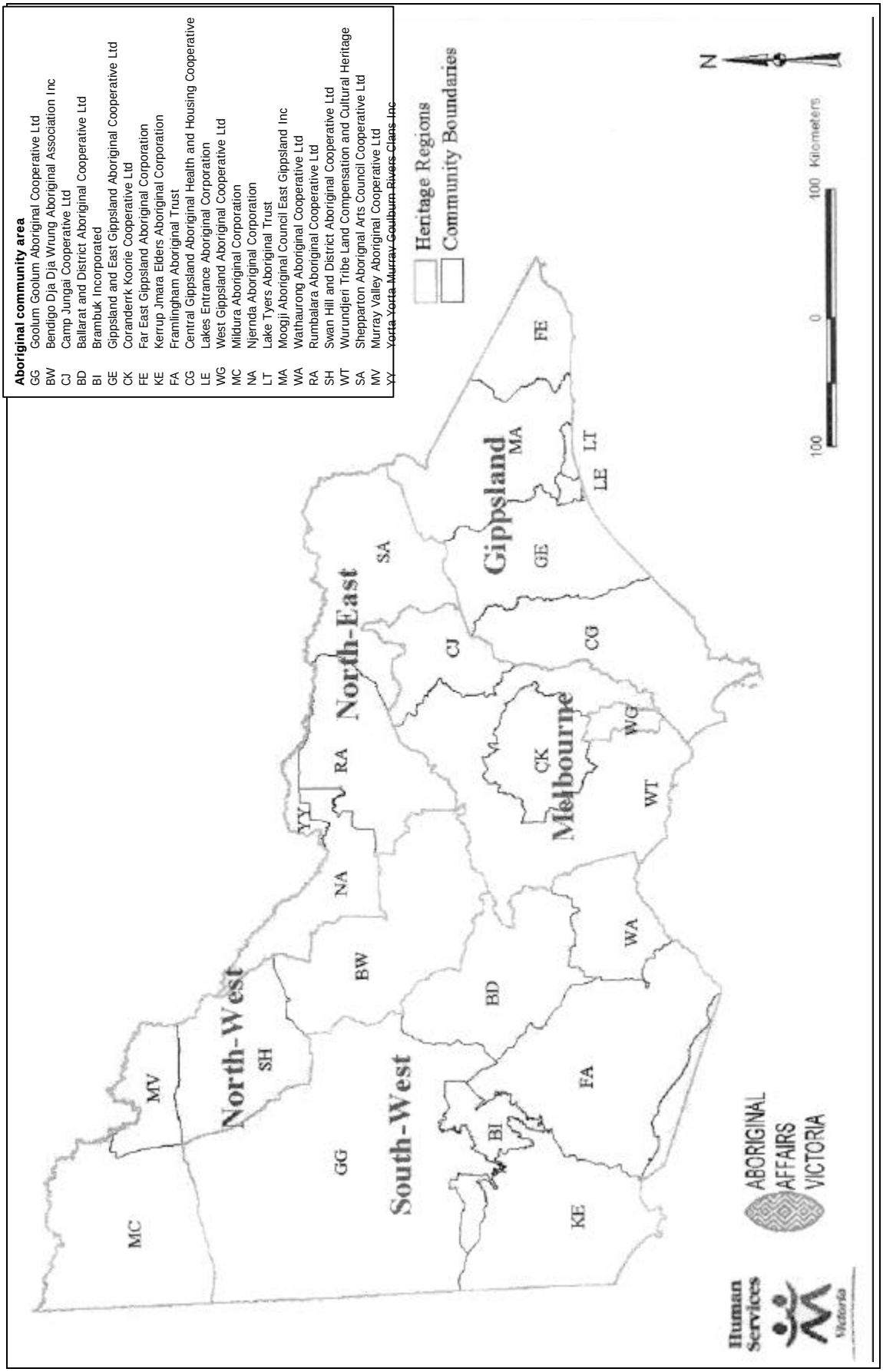

Figure 2.1 **Cultural heritage program regions and Aboriginal community area boundaries**

2.5 Education, health and human services

2.5.1 Health and human services

The Department of Human Services, through the Gippsland Regional Service, has six regional offices, in Traralgon, Bairnsdale, Leongatha, Morwell, Sale and Warragul.

The region is serviced by a number of Hospitals and Health Centres which are listed below. In September 1998, the Latrobe Regional Hospital closed. Health services are now being provided by the privately operated New Latrobe Regional Hospital, which is also contracted to provide services to public hospital patients.

In 1997–98 the Yarram and District Health Service received $80 000, as part of the Hospital Information Technology and Telecommunication Strategy, for a Telehealth services and video conferencing equipment. This equipment means regional patients do not have to travel to Melbourne for specialist advice or consultations.

Gippsland Public Health Care Services:
- New Latrobe Regional Hospital
- Bairnsdale Regional Health Service
- West Gippsland HealthCare Service
- Wonthaggi and District Hospital
- Gippsland Southern Health Service
- Yarram and District Health Service
- Maffra District Hospital
- Omeo District Hospital
- Far East Gippsland Health and Support Service
- South Gippsland Hospital
- Central Wellington Health Service

In recent years, State government policy has been to reform mental health in Victoria. The reform has primarily focused on restructuring mental health services from large psychiatric institutions to that of providing treatment through generic hospitals and local community based services.

Throughout 1997–98, the response time for rural ambulance services remained relatively unchanged even though the case load increased by 4%. In country Victoria, ambulance services responded to a total of 98 050 cases.

The Rural Healthstreams Program began in 1996–97 to assist small rural communities to be able to provide a broader range of services. This year to program funded five more communities, with expenditure of $870 000. Twenty-one communities have now been assisted.

To understand rural issues, cross-regional Rural Health Services Forums were held throughout 1998, including one in Yarram, to improve service planning and local management.

Additional funding was directed into strengthening the placement and support services for Aboriginal children. Koorie liaison officers were employed in the Bairnsdale Regional Hospital, New Latrobe Regional Hospital and with the West Gippsland Health Care Group. The responsibility of these officers is to assist Aboriginal patients, and is part of the Koorie Services Improvement Strategy which aims to provide an opportunity for Koorie people to be involved in the development and delivery of services to their community.

2.5.2 Education

The Department of Education has five regional offices in Gippsland, those being in Moe, Bairnsdale, Leongatha, Morwell and Warragul. The Gippsland area has 158 schools (both primary and secondary), and a total of 33 552 students. It is the second smallest region in terms of student numbers within Victoria.

Recent reforms to the Victorian education system, have focused on improving the quality of schools, teaching, facilities and equipment. Victoria currently spends less per student on central administration and other out-of-school costs than any other State or Territory in Australia.

The student-teacher ratio for Victorian schools in 1997 is listed in Table 2.10. The overall ratio was 15.2 students per teacher, also listed is the student-computer ratio. One of the strategic priorities for 1998–99 is to maximise the use of information technology and multimedia in both service delivery and corporate management across all regions.

Table 2.10 Student ratios for Victorian schools

School level	Student–teacher ratio (per teacher)	Student–computer ratio (per computer)
Primary	17.9 students	8.4 students
Secondary	12.4 students	5.4 students

Source: Annual Report Department of Education 1997–98.

One of the Department of Education's main aims is to improve the delivery of higher education in regional Victoria. There are now nine publicly funded universities throughout Victoria, including Monash University's Gippsland campus at Churchill. The East Gippsland TAFE also has two campuses in Bairnsdale and Sale, with three outreach offices at Heyfield, Yarram and Swifts Creek.

The Adult, Community and Further Education (ACE) program aims to encourage lifelong learning through community-based education. The Gippsland region accounts for 9.6% of all enrolments, making it the fourth largest region for enrolments.

The Regional Council for ACE in Gippsland aims to be the leader in promoting ongoing excellence in adult education programs, and in 1997–98:

- enrolments within the region rose from 27 840 to 33 446;
- twenty-seven community-based providers were funded to purchase computers and modems;

- twenty communities-based providers obtained free Internet connection, and training;
- a new Koorie community-based provider was registered; and
- a Koorie Cultural Awareness seminar and Art exhibition was incorporated in to the Annual Conference.

In addition, all Regional Councils developed Koorie Education Strategies, with over 1000 Koorie enrolments in ACE programs around Victoria in 1997. In addition a number of specific Koorie program were supported, including the development and accreditation of new curriculum, a Certificate in Koorie Education.

Bairnsdale was one of three Victorian towns which participated in a Commonwealth funded study into accelerated vocational education and TAFE outcomes for Koorie youth at risk. The study demonstrated that improvements in indigenous learning outcomes can occur in a short period though concerted effort.

2.6 Economic

2.6.1 Labour force participation

Table 2.11 shows the unemployment rate within the Gippsland RFA region to be 12.2%, which is somewhat higher than that of 10.2% found in rural Victoria. Across each of the six sub-regions the unemployment rate varied from 9.6% and 9.7% in the South Coast and Sale sub-regions to 14.5% and 13.7% in the Bairnsdale (inner) and Bairnsdale (outer) sub-regions. Amongst males the unemployment rate reached 15.5% within the Bairnsdale (inner) sub-region and 17.1% within the Bairnsdale (outer) sub-region. As also shown in Table 2.9, the Bairnsdale (inner) and (outer) sub-regions were also found to have the lowest labour force participation rates.

The unemployment rate for the population within the Gippsland RFA region has increased from 7.8% in 1986 to 13% in 1996. As shown in Table 2.12, this has primarily been due to a threefold increase in the unemployment rate for males during the ten-year period, as compared to only a 1% increase in the unemployment rate amongst females. While there has been an overall 2% decrease in the labour force participation rate within the population during the past 10 years, this masks the 8% decrease in male labour force participation and the 2% rise in female labour force participation.

Table 2.11 Labour force participation

Labour force status	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
Employed								
Males	20 618	4 963	4 365	6 333	5 703	1 120	38 354	308 677
Females	15 301	3 798	3 190	4 697	4 480	826	28 478	230 659
Total	35 919	8 761	7 555	11 030	10 183	1 946	66 832	539 336
Unemployed								
Males	3 543	736	515	726	1 050	231	5 930	37 423
Unemployment rate[1]	(14.7%)	(12.9%)	(10.6%)	(10.3%)	(15.5%)	(17.1%)	(13.4%)	(10.8%)
Females	1 973	392	286	458	566	99	3 315	23 546
Unemployment rate[1]	(11.4%)	(9.4%)	(8.2%)	(8.9%)	(11.2%)	(10.7%)	(10.4%)	(9.3%)
Total	5 516	1 128	801	1 184	1 616	330	9 245	60 969
Unemployment rate[1]	(13.3%)	(11.4%)	(9.6%)	(9.7%)	(13.7%)	(14.5%)	(12.2%)	(10.2%)
Total labour force								
Males	24 161	5 699	4 880	7 059	6 753	1 351	44 284	346 100
Labour force participation[2]	(71.6%)	(71.1%)	(70.6%)	(73.7%)	(62.3%)	(63.9%)	(70.6%)	(70.3%)
Females	17 274	4 190	3 476	5 155	5 046	925	31 793	254 205
Labour force participation[2]	(48.6%)	(50.2%)	(50.1%)	(51.6%)	(44.6%)	(42.4%)	(48.9%)	(49.6%)
Total	41 435	9 889	8 356	12 214	11 799	2 276	76 077	600 305
Labour force participation[2]	(59.8%)	(60.5%)	(60.3%)	(62.4%)	(53.3%)	(53.0%)	(59.6%)	(59.8%)
Not in labour force[3]								
Males	9 600	2 311	2 029	2 513	4 079	764	18 485	146 092
Females	18 270	4 158	3 465	4 845	6 265	1 258	33 159	257 805
Total	27 870	6 469	5 494	7 358	10 344	2 022	51 644	403 897

[1]Number of unemployed males, females or total expressed as a percentage of the labour force.
[2]Number of males, females or persons in the labour force expressed as a percentage of the total males, females or persons aged 15 years or over.
[3]Excludes occupations inadequately described or not stated.
Data source: ABS (1996).
Prepared by: EBC (1998).

Table 2.12 Time series: labour force participation

Labour force participation	1986	1991	1996
Employed			
Males	39 520	36 241	32 541
Females	21 980	24 014	24 327
Total	61 500	60 255	56 868
Unemployed			
Males	2 184	5 287	5 525
Unemployment rate[1]	(5.2%)	(12.7%)	(14.5%)
Females	2 367	3 176	2 962
Unemployment rate[1]	(9.7%)	(11.7%)	(10.9%)
Total	5 181	8 463	8 487
Unemployment rate[1]	(7.8%)	(12.3%)	(13.0%)
Total labour force			
Males	42 334	41 528	38 066
Labour force participation[2]	(77.4%)	(74.1%)	(69.5%)
Females	24 347	27 190	27 289
Labour force participation[2]	(45.9%)	(48.6%)	(48.1%)
Total	66 681	68 718	65 355
Labour force participation[2]	(61.9%)	(61.4%)	(58.6%)
Not in labour force[3)]			
Males	12 361	14 521	16 687
Females	28 742	28 737	29 461
Total	41 103	43 258	46 148
Total[3]			
Males	54 695	56 049	54 753
Females	53 089	55 927	56 750
Total	107 784	111 976	111 503

[1]Number of unemployed males, females or total expressed as a percentage of the labour force.
[2]Number of males, females or persons in the labour force expressed as a percentage of the total males, females or persons aged 15 years or over.
[3]Excludes occupations inadequately described or not stated.
Data source: ABS (1996)
Prepared by: EBC (1998)

2.6.2 Industry sector employment

Table 2.13 shows a profile of employment by industry sector. The highest percentage of employment for the Gippsland RFA region is in the retail trade followed by agriculture, forestry and fishing. The Gippsland region has a higher rate of employment in mining, and electricity, gas and water, due to the power industries located in the Latrobe Region. The remaining industry profiles for Gippsland are similar to Rural Victoria, with the exception of lower employment in manufacturing.

In relation to each of the six sub-regions there are numerous differences in the industry employment profiles. Of particular note when making relative comparisons across sub-regions is (a) the low levels of employment in agriculture, forestry and fishing in the Latrobe Region (inner) sub-region, (b) high levels employment in mining within the Sale sub-region and (c) high levels of employment associated with accommodation, cafes and restaurants in the Bairnsdale (outer) sub-region.

Table 2.13 Employment in industry sector

Industry sector	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
Agriculture, forestry and fishing	3 379 (9.6%)	1 160 (13.4%)	2 541 (35.1%)	1 612 (14.9%)	1 120 (11.4%)	270 (15.3%)	8 819 (13.5%)	69 586 (13.1%)
Mining	326 (0.9%)	76 (0.9%)	83 (1.1%)	442 (4.1%)	91 (0.9%)	24 (1.4%)	955 (1.5%)	2 574 (0.5%)
Manufacturing	3 969 (11.3%)	904 (10.4%)	576 (7.9%)	791 (7.3%)	889 (9.1%)	191 (10.8%)	6414 (9.8%)	72 110 (13.6%)
Electricity, gas and water supply	2 170 (6.2%)	235 (2.7%)	39 (0.5%)	155 (1.4%)	81 (0.8%)	9 (0.5%)	2 461 (3.8%)	7 361 (1.4%)
Construction	2 573 (7.3%)	595 (6.9%)	418 (5.8%)	686 (6.3%)	674 (6.9%)	114 (6.4%)	4 468 (6.8%)	31 306 (5.9%)
Wholesale trade	1 675 (4.8%)	447 (5.2%)	322 (4.4%)	383 (3.5%)	449 (4.6%)	62 (3.5%)	2 907 (4.4%)	25 417 (4.8%)
Retail trade	5 344 (15.2%)	1 336 (15.4%)	751 (10.4%)	1 496 (13.8%)	1 733 (17.6%)	242 (13.7%)	9 511 (14.5%)	77 109 (14.6%)
Accomm, cafes and restaurants	1 131 (3.2%)	211 (2.4%)	322 (4.4%)	418 (3.9%)	712 (7.3%)	163 (9.2%)	2 836 (4.3%)	25 446 (4.8%)
Transport and storage	859 (2.4%)	285 (3.3%)	163 (2.2%)	244 (2.3%)	331 (3.4%)	99 (5.6%)	1 678 (2.6%)	18 139 (3.4%)
Communication services	501 (1.4%)	148 (1.7%)	58 (0.8%)	137 (1.3%)	115 (1.2%)	27 (1.5%)	856 (1.3%)	8 116 (1.5%)
Finance and insurance	1 233 (3.5%)	202 (2.3%)	115 (1.6%)	265 (2.4%)	218 (2.2%)	36 (2.0%)	1 911 (2.9%)	12 643 (2.4%)
Property and business services	2 603 (7.4%)	550 (6.3%)	288 (4.0%)	647 (6.0%)	563 (5.7%)	60 (3.4%)	4 400 (6.7%)	30 835 (5.8%)
Govt administration and defence	1 205 (3.4%)	354 (4.1%)	262 (3.6%)	1 011 (9.3%)	338 (3.4%)	87 (4.9%)	3 022 (4.6%)	22 717 (4.3%)
Education	2 966 (8.4%)	759 (8.8%)	491 (6.8%)	907 (8.4%)	837 (8.5%)	154 (8.7%)	5 309 (8.1%)	40 100 (7.6%)
Health and community services	3 117 (8.9%)	775 (8.9%)	540 (7.5%)	1 031 (9.5%)	1 145 (11.7%)	190 (10.7%)	6 011 (9.2%)	52 747 (10.0%)
Cultural and recreation services	495 (1.4%)	165 (1.9%)	95 (1.3%)	150 (1.4%)	135 (1.4%)	36 (2.0%)	933 (1.4%)	9 116 (1.7%)
Personal and other services	1 175 (3.3%)	393 (4.5%)	184 (2.5%)	415 (3.8%)	341 (3.5%)	70 (4.0%)	2 179 (3.3%)	17 701 (3.3%)
Total[1]	35 124 (100.0%)	8 662 (100.0%)	7 247 (100.0%)	10 823 (100.0%)	9 819 (100.0%)	1 770 (100.0%)	65 470 (100.0%)	529 519 (100.0%)

[1]Excludes persons not indicating an industry sector or an unclassifiable industry sector.
Data source: ABS (1996).
Prepared by: EBC (1998).

Employment by industry sector during the last 10 years is shown in Table 2.14. Consistent and significant increases in employment are found in property and business services; health and community service; retail trade; wholesale; accommodation, cafe and restaurant; and education sectors. On the other hand, consistent and significant decreases in employment are found in the electricity, gas and water supply; and construction sectors. Agriculture, forestry and fishing has remained relatively constant.

Table 2.14 Time series: employment in industry sector

Employment in industry sector	1986		1991		1996	
Agriculture, forestry and fishing	8 102	(13.7%)	7 305	(13.0%)	7 641	(13.9%)
Mining	1 038	(1.8%)	1 088	(1.9%)	690	(1.3%)
Manufacturing	5 364	(9.0%)	5 209	(9.2%)	5 429	(9.9%)
Electricity, gas and water supply	9 297	(15.7%)	6 472	(11.5%)	2 460	(4.5%)
Construction	5 291	(8.9%)	4 070	(7.2%)	3 900	(7.1%)
Wholesale trade	1 828	(3.1%)	2 202	(3.9%)	2 523	(4.6%)
Retail trade	7 938	(13.4%)	8 003	(14.2%)	8 327	(15.1%)
Accommodation, cafes and restaurants	1 742	(2.9%)	1 955	(3.5%)	2 354	(4.3%)
Transport and storage	1 569	(2.6%)	1 430	(2.5%)	1 447	(2.6%)
Communication services	828	(1.4%)	740	(1.3%)	756	(1.4%)
Finance and insurance	1 413	(2.4%)	1 476	(2.6%)	1 705	(3.1%)
Property and business services	2 062	(3.5%)	2 311	(4.1%)	3 637	(6.6%)
Government administration and defence	2 894	(4.9%)	3 178	(5.6%)	2 206	(4.0%)
Education	4 035	(6.8%)	4 308	(7.6%)	4 472	(8.1%)
Health and community services	3 986	(6.7%)	4 577	(8.1%)	4 993	(9.1%)
Cultural and recreational services	545	(0.9%)	625	(1.1%)	784	(1.4%)
Personal and other services	1 348	(2.3%)	1 437	(2.5%)	1 730	(3.1%)
Total	59 280	(100%)	56 386	(100%)	55 054	(100%)

Note: Based on persons aged 15 years and over. Excludes overseas visitors and persons not indicating a country of birth.
Data source: ABS (1996)
Prepared by: EBC (1998).

2.6.3 Occupational structure

Table 2.15 shows similar percentage of white and blue collar workers in the Gippsland RFA region when compared to rural Victoria. However, there were significant differences in the percentage of white and blue collar workers across each of the six sub-regions. For example, the South Coast sub-region had the highest percentage of white collar workers, in particular managers and administrators (32%). On the other hand, the highest percentage of blue collar workers were found in the Bairnsdale (outer) sub-region, in particular production and transport workers (14%).

Table 2.15 Occupational structure

Occupation	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
White collar								
Managers and administrators	4 099 (11.8%)	1 259 (14.8%)	2 332 (31.8%)	1 767 (16.4%)	1 200 (12.1%)	220 (11.7%)	9 730 (15.0%)	77 203 (14.7%)
Professionals	4 961 (14.2%)	1 253 (14.7%)	801 (10.9%)	1 621 (15.1%)	1 447 (14.6%)	252 (13.4%)	9 276 (14.3%)	75 534 (14.4%)
Associate professionals	4 064 (11.7%)	944 (11.1%)	749 (10.2%)	1 302 (12.1%)	1 491 (15.0%)	265 (14.1%)	7 992 (12.3%)	60 908 (11.6%)
Advanced clerical and service	1 195 (3.4%)	269 (3.2%)	219 (3.0%)	374 (3.5%)	355 (3.6%)	72 (3.8%)	2 209 (3.4%)	17 291 (3.3%)
Intermediate clerical, sales and service workers	4 671 (13.4%)	1 095 (12.8%)	680 (9.3%)	1 386 (12.9%)	1 380 (13.9%)	218 (11.6%)	8 409 (12.9%)	70 108 (13.4%)
Elementary clerical, sales and service workers	3 306 (9.5%)	821 (9.6%)	419 (5.7%)	967 (9.0%)	865 (8.7%)	137 (7.3%)	5 679 (8.7%)	46 000 (8.8%)
Sub-total	22 296 (64.0%)	5 641 (66.1%)	5 200 (71.%)	7 417 (69.0%)	6 738 (68.0%)	1 164 (61.8%)	43 295 (66.6%)	347 044 (66.2%)
Blue collar								
Trades and related workers	5 613 (16.1%)	1 273 (14.9%)	841 (11.5%)	1 724 (16.0%)	1 371 (13.8%)	235 (12.5%)	9 789 (15.1%)	73 321 (14.0%)
Intermediate production and transport workers	3 844 (11.0%)	778 (9.1%)	521 (7.1%)	739 (6.9%)	799 (8.1%)	268 (14.2%)	6 038 (9.3%)	48 925 (9.3%)
Labourers and related workers	3 110 (8.9%)	842 (9.9%)	762 (10.4%)	867 (8.1%)	1 002 (10.1%)	217 (11.5%)	5 854 (9.0%)	54 755 (10.4%)
Sub-total	12 567 (36.0%)	2 893 (33.9%)	2 124 (29.0%)	3 330 (31.0%)	3 172 (32.0%)	720 (38.2%)	21 681 (33.4%)	177 001 (33.8%)
Total[1]	34 863 (100%)	8 534 (100%)	7 324 (100%)	10 747 (100%)	9 910 (100%)	1 884 (100%)	64 976 (100%)	524 045 (100%)

[1]Excludes occupations inadequately described or not stated.
Data source: ABS (1996).
Prepared by: EBC (1998).

The time series analysis of occupational structure within the Gippsland RFA region, shows a consistent pattern of increasing employment amongst white collar workers and decreasing employment amongst blue collar workers (Table 2.16). The increase in white collar employment occurs primarily within the associate professionals and intermediate clerical, sales and service workers sectors, while the decrease in blue collar employment is across all employment sectors.

Table 2.16 Time series: occupational structure

Occupation	1986		1991		1996	
White collar						
Managers and administrators	8 602	(14.4%)	8 681	(15.5%)	8 211	(14.9%)
Professionals	6 982	(11.7%)	7 010	(12.5%)	7 574	(13.7%)
Associate professionals	4 500	(7.5%)	4 577	(8.2%)	6 703	(12.1%)
Advanced clerical and service workers	2 868	(4.8%)	2 584	(4.6%)	1 874	(3.4%)
Intermediate clerical, sales and service workers	4 428	(7.4%)	5 270	(9.4%)	7 149	(12.9%)
Elementary clerical, sales and service workers	6 025	(10.1%)	5 949	(10.6%)	4 821	(8.7%)
Sub total	33 405	(56.0%)	34 071	(60.7%)	36 332	(65.7%)
Blue collar		11 836		9 953		8 451
Tradespersons and related workers	11 836	(19.8%)	9 953	(17.7%)	8 451	(15.3%)
Intermediate production and transport workers	7 636	(12.8%)	6 339	(11.3%)	5 454	(9.9%)
Labourers and related workers	6 824	(11.4%)	5 775	(10.3%)	5 031	(9.1%)
Sub total	26 296	(44.0%)	22 067	(39.3%)	18 936	(34.3%)
Total[1]	59 701	(100%)	56 138	(100%)	55 268	(100%)

Note: Based on persons aged 15 years and over
[1]Excludes occupations inadequately described or not stated.
Data source: ABS (1996)
Prepared by: EBC (1998).

2.6.4 Household income

Table 2.17 shows that 28% of residents within the Gippsland RFA region have weekly household incomes less than $299 and that 66% of residents have a weekly income between $300-$1500. The profile for household income within the Gippsland RFA region is similar to that found within rural Victoria. Across the six sub-regions there is however significant variation in weekly household income, with over 33% of residents within the Bairnsdale (inner and outer) sub-regions having household incomes less than $299 a week.

Table 2.17 Weekly household income

Weekly household income group	Latrobe region (inner)	Latrobe region (outer)	South Coast	Sale	Bairnsdale (inner)	Bairnsdale (outer)	Gippsland RFA	Rural Victoria
Low								
$1–119	575	145	195	168	314	53	1261	8 599
	(1.9%)	(2.0%)	(3.1%)	(2.0%)	(3.1%)	(2.7%)	(2.3%)	(2.0%)
$120–299	7 439	1 950	1 751	1 940	3 035	608	14 252	106 845
	(24.4%)	(26.3%)	(27.8%)	(23.0%)	(29.8%)	(31.0%)	(25.6%)	(24.6%)
Sub total	8 014	2 095	1 946	2 108	3 349	661	15 513	115 444
	(26.3%)	(28.3%)	(30.9%)	(24.9%)	(32.9%)	(33.7%)	(27.9%)	(26.5%)
Middle								
$300–499	6 359	1 622	1 465	1 790	2 582	533	12 267	95 624
	(20.9%)	(21.9%)	(23.3%)	(21.2%)	(25.4%)	(27.1%)	(22.0%)	(22.0%)
$500–699	4 633	1 167	1 006	1 366	1 654	318	8 705	71 933
	(15.2%)	(15.8%)	(16.0%)	(16.2%)	(16.3%)	(16.2%)	(15.6%)	(16.5%)
$700–999	5 319	1 279	903	1 437	1 368	267	9 067	73 470
	(17.5%)	(17.3%)	(14.3%)	(17.0%)	(13.4%)	(13.6%)	(16.3%)	(16.9%)
$1000–1499	4 145	854	622	1 161	838	137	6 796	53 131
	(13.6%)	(11.5%)	(9.9%)	(13.7%)	(8.2%)	(7.0%)	(12.2%)	(12.2%)
Sub total	20 456	4 922	3 996	5 754	6 442	1 255	36 835	29 4158
	(67.2%)	(66.5%)	(63.5%)	(68.1%)	(63.3%)	(63.9%)	(66.1%)	(67.6%)
High								
$1500–1999	1 228	230	182	273	196	31	1 893	14 625
	(4.0%)	(3.1%)	(2.9%)	(3.2%)	(1.9%)	(1.6%)	(3.4%)	(3.4%)
$2000 or more	764	155	171	316	188	17	1 451	10 598
	(2.5%)	(2.1%)	(2.7%)	(3.7%)	(1.8%)	(0.9%)	(2.6%)	(2.4%)
Sub total	1 999	390	359	596	388	50	3 350	25 229
	(6.6%)	(5.3%)	(5.7%)	(7.1%)	(3.8%)	(2.6%)	(6.0%)	(5.8%)
Total	30 462	7 402	6 295	8 451	10 175	1 964	55 692	434 825
	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)

[1]Excludes overseas visitors and persons not indicating household income.
Data source: ABS (1996).
Prepared by: EBC (1998).

2.7 Forest related industries

2.7.1 Timber industries

Similar to adjacent regions, the native ash forests of the Gippsland region have a high commercial value. This is due to relatively rapid rates of growth and the characteristic long straight bole of ash trees making them highly suitable for milling into appearance grade sawn timber products. Although the ash forests in the Gippsland region (comprising alpine ash and mountain ash species) account for a relatively small proportion of the total productive forest area in the region (24 per cent), they provide the largest proportion of higher grade logs in the region, and include the largest productive area of alpine ash forest in Victoria.

Residual logs sourced from ash forests are also regarded as a cost-effective input into the manufacture of pulp and paper products because of the low quantity of black tannins produced during the paper manufacturing process. This factor makes ash trees less costly to process than other pulpwood species, such as the mixed hardwood species, which contain higher quantities of black tannins. The cost of log transport is an important factor to be taken into account by pulp producers in determining where they source their pulpwood.

The Gippsland region represents a sizeable source of ash logs for the domestic sawmilling and pulp and paper based industries, accounting for approximately nine per cent of total ash type logs produced from Victorian State forests in 1997–98 and approximately half of sawlogs produced in the Gippsland region. The region produced 61 879 cubic metres of ash sawlogs in 1997–98, with a total log revenue of approximately $2.3 million, and 40 410 cubic metres of ash type residual log in 1997–98, with a total log revenue of around $260 000.

Fifteen-year sawlog licences were first issued in 1987 and specified the volumes and grades of sawlogs to be supplied. Long-term licences were introduced to provide a greater degree of certainty regarding the supply of wood resources for the timber industry and to promote further investment in value adding. The volume of logs a mill is allocated is often covered by more than one licence.

The logs sourced from the Gippsland region in 1997-98 were used to produce a variety of timber products. Structural timbers, scantling, pallets and palings were produced from the unseasoned timber primarily for Victorian markets. The seasoned timber products included appearance grade sawntimber and veneer output for both Victorian and export markets. The higher prices received for these products reflect the additional processing required. Mills producing seasoned timber accounted for over half of the estimated $1.0 million of capital investment undertaken in mills sourcing logs from the Gippsland region in 1997–98.

Detailed information on the Timber Industry in Gippsland was published in Chapter 5 of the Gippsland Comprehensive Regional Assessment Report.

The Gippsland RFA region falls within the Central Gippsland plantation region. The Central Gippsland plantations are generally located within the area bounded by Warragul, Yarram and Sale, with outliers to the west of Bairnsdale. The resource is substantially based on the Strzelecki Ranges and the coastal plain to the east.

The total plantation area in the Gippsland region in 1998 was approximately 85 700 ha. Of this area, some 54 000 ha are owned by Australian Paper Plantation Pty Ltd (APP), 26 000 ha of plantation are owned by Hancock Victorian Plantations Pty Ltd, and some 5 700 ha are in private ownership (GFP 1998). In 1998, the Hancock Timber Resources Group acquired the plantation resource of the Victorian Plantations Corporation (VPC). Current annual roundwood supplies to industries in the region total approximately 450 000 m^3 of sawlogs and 615 000 m^3 of pulpwood.

The plantations support major regional industries (Australian Paper Ltd, Brown & Dureau Building Materials Pty Ltd, McDonnell Industries and Planthard Pty Ltd). Collectively, these industries process both softwood and hardwood sawlogs, and

residual roundwood for pulp and paper products. At least seven smaller firms preserve pine roundwood, with one of them sawing timber as well. Small sawlog/pulp logs from the region are sourced for the export facility at Geelong through SPE (Management) Pty Ltd and through Midway Pty Ltd.

Detailed information on plantations in Gippsland was published in Chapter 6 of the Gippsland Comprehensive Regional Assessment Report.

2.7.2 Other native forest use

Forests of the Gippsland region supply a range of products and benefits in addition to the sawlog and residual wood. These include minor forest produce such as posts and poles, other hewn timber, firewood, wood chop blocks and specialty timbers, and uses including grazing and apiculture.

Firewood

The extent of domestic firewood collection from forests varies across the Gippsland region. Major towns, including Traralgon, Bairnsdale, Sale, Lakes Entrance, Yarram and Warragul have the greatest demand for firewood due to their population size. The increase in popularity of wood heaters has further increased demand in recent years. Firewood is supplied from both State forest and private property, and collection areas include designated areas of State forest to the north of Bairnsdale and Briagolong, Boola Boola State Forest, and Colquhoun State Forest near Lakes Entrance. In the south of the region, Mullungdung, Won Wron and Alberton West State Forests supply Yarram, Leongatha and surrounding towns. Towns outside the RFA region such as Erica and Nowa Nowa also use the State forests in Gippsland for firewood.

Specialty timbers and craftwood

Species such as Red Ironbark and Yellow Stringybark produce timber with attractive colour and figure, making them sought after for use in furniture manufacturing and wood-turning. Burls from trees cut in harvesting coupes are also sought after by wood-turners. The supply of specialty timbers is generally small and is variable depending on the availability of suitable species.

Grazing

Cattle grazing has a long standing association with Gippsland, dating back to the 1800s in alpine areas. Alpine grazing licences, which generally cover areas above the snowline (1220 m elevation), are issued annually in State forest, although grazing may only take place during specified periods. Seasonal bush grazing licences cover sub-alpine and foothill forests on public land and allow grazing for part of the year. In 1997–98, there were 289 Grazing, 23 Bush Grazing (seasonal), 54 Alpine Grazing and 5 Contiguous Alpine Grazing licences covering over 470 000 hectares of public land in Gippsland.

Apiculture

Apiarists use forests of the Gippsland region for honey production. Small-scale production occurs in foothill forests, river valleys and coastal areas using species such as Yellow Box (*E. melliodora*), Red Ironbark (*E. sideroxylon*), But But (*E. bridgesiana*), Red Stringybark (*E. macrorhyncha*), Silvertop (*E. sieberi*) and Long-leaf Box (*E. goniocalyx*). Apiculture on public land is controlled through the issue of annual licences and temporary permits (3 and 6 months). Licences and permits allow access to a site for locating hives and use of forest nectar and pollen resources within a radius of 1.6 km or 0.8 km for annual and temporary sites respectively. Currently, there are 8 annual bee sites and 385 temporary bee sites licensed in the Gippsland region. There are numerous other temporary sites in the region which are not currently licensed.

Other produce

NRE employs contractors to collect seed for regeneration of logging coupes. In addition, quantities of seed are collected by private companies and other organisations under permit and a royalty is paid by capsule weight. The most sought-after species is Shining Gum (*E. nitens*) for plantation establishment.

Detailed information on Other Native Forest Use in Gippsland was published in Chapter 7 of the Gippsland Comprehensive Regional Assessment Report.

2.7.3 Tourism and recreation

Gippsland offers a combination of natural and developed tourism attractions for visitors to experience. Public land provides coastal, lake, river and alpine settings which are the basis for a diverse range of recreation activities, including boating, fishing, surfing, diving, forest drives, bushwalking, picnicking, camping, cross country skiing, white-water rafting and four-wheel driving. Developed attractions including historic towns such as Walhalla, gourmet agricultural produce and industry-related products add to the overall appeal of the region. The Great Alpine Road and other touring routes link attractions and activities throughout Gippsland.

The 'Gippsland Natural Discovery' and 'Lakes and Wilderness' tourism regions extend from south Gippsland to far east Victoria (Tourism Victoria 1996a, 1996b). Visitors to Gippsland are predominantly Victorians, with around 90 per cent being tourists from Melbourne and country Victoria.

In 1995, the Gippsland Natural Discovery region received 1.17 million day trippers, or 6 per cent of all Victorian day trips, who spent $34 million (Tourism Victoria 1996b). Visiting friends and relatives, and shopping are the most popular day trip activities.

For the same period, the Gippsland Natural Discovery region received 937 000 visitors, who spent a total of 2.42 million visitor nights in the region, accounting for only 5 per cent of the Victorian total. Both the number of visitors and expenditure in the Gippsland Natural Discovery region are low in comparison with other tourism regions near Melbourne.

More than half of the visitors to Gippsland travel for holidays or to visit friends and relatives. Low levels of spending in west Gippsland, particularly on accommodation, are partially attributed to the high percentage of visits to friends and relatives (USE 1997a).

The most popular visitor activities in Gippsland are shown in Table 2.18.

Table 2.18 Most popular visitor activities in the Gippsland region, 1995

Activity	Gippsland Natural Discovery Region %	Lakes and Wilderness Region %
Visiting friends and relatives	49	41
Drive to sightsee/pleasure	43	52
Shopping	32	47
Bushwalking	31	24
Restaurants/dining out	28	46
Visiting national park/forest	28	21
Swimming/diving/surfing	21	25
Visit a museum or historic site	9	11
Visit an art gallery/craft centre	8	17
Visit a Park or Garden	6	11

Tourism and recreation in the Gippsland region is generally focused on the natural environment with adventure and recreation activities, touring and agricultural production being the region's core tourism products. Public land across the region provides the basis for many activities and Wilsons Promontory National Park and the Gippsland Lakes are the major tourism destinations in the region. Lake Glenmaggie, and the Mitchell and Thomson Rivers are also significant attractions, providing for activities such as camping, canoeing, white-water rafting and fishing. Coastal attractions including the Gippsland Lakes and Ninety Mile Beach.

Tourism Victoria is currently developing car touring routes throughout Victoria, of which four cross the Gippsland region. These touring routes, which follow the Great Alpine Road, the South Gippsland Highway and Highway One (Princes Highway), are important in linking Gippsland to other regions including the North East and East Gippsland. A number of walking and cycling trails across the region such as the Howitt Cycle Trail and the McMillan Trail complement these car touring routes.

Tourism and recreation in National Parks and Reserves

Within the Gippsland region there are six National Parks, two State Parks, the Avon Wilderness Park, and a number of Marine and Coastal Parks and reserves. The most popular parks in the Gippsland region are Wilsons Promontory National Park, which attracts 34 per cent of visits to parks and reserves, and the Gippsland Lakes Coastal Park (20 per cent). Many visitors also enjoy other parks and reserves in Gippsland. For example, Nyerimilang Park attracts around 28 000 visits annually. Visitor numbers to the parks in Gippsland are shown in Table 2.19.

Table 2.19 Visitation to parks in Gippsland managed under the National Parks Act, total visit-days 1989–1998[1]

Park name	1989–90	1990–91	1991–92	1992–93	1993–94	1994–95	1995–96	1996–97	1997–98
Alpine NP[2]	29 800	18 400	36 500	40 300	41 600	45 000	65 900	70 500	55 300
Mitchell River NP	44 000	29 000	21 400	22 000	54 400	17 600	28 200	9 700	10 400
Morwell NP	27 400	33 200	32 300	31 800	43 900	33 200	34 900	31 500	32 900
Tarra-Bulga NP	109 600	37 500	102 300	85 000	110 000	80 000	80 000	68 700	67 700
The Lakes NP	105 900	89 900	81 530	80 000	75 700	64 400	52 500	57 300	64 600
Wilsons Promontory NP	423 800	426 300	402 800	364 500	400 800	378 800	369 400	407 100	396 000
Avon WP	-	-	-	100	100	120	1 200	1 100	1 200
Holey Plains SP	6 000	8 400	9 450	8 000	6 500	6 500	3 300	5 700	6 500
Mount Worth SP	17 000	21 300	20 820	21 000	21 000	17 000	16 700	13 900	13 900
Gippsland Lakes CP	-	197 300	182 700	200 000	200 000	71 700	101 300	211 600	232 600
Corner Inlet and Nooramunga M&CP	-	-	-	-	-	150 000	150 000	67 200	70 800
Shallow Inlet M&CP	-	-	-	-	-	45 000	45 000	4 500	7 900
Wilsons Promontory MP/MR	-	-	-	-	-	80 000	80 000	90 000	100 000
Total	763 500	861 300	889 800	852 700	954 000	989 320	1 028 400	1 038 800	1 059 800

[1] Figures have been rounded. Visitor numbers recorded for parks without controlled entry points are estimates only. Counting methods include mechanical counters and periodic staff observation. Estimates for remote parks with multiple entry points have limited reliability and are subject to significant annual variability. An ongoing program is in place to audit and improve the accuracy of visitor number monitoring in Victorian parks.
[2] This estimate for the Gippsland region is based on 15 per cent of total visitation to the Alpine National Park.
Note: NP = National Park, SP = State Park, WP = Wilderness Park,; CP = Coastal Park; M&CP = Marine and Coastal Park, MP/MR = Marine Park/Marine Reserve
Source: Parks Victoria unpublished data (1998).

Activities in Gippsland's parks and reserves include picnicking, camping, fishing, bushwalking, nature observation, horse-riding, rock-climbing, rafting/canoeing, cycling, and four-wheel and pleasure driving. Coastal parks also provide the setting for activities such as boating, sailing, swimming, surfing and diving. Cross-country skiing is also a popular activity in alpine areas such as the Tamboritha ski area. In some cases and under special conditions, organised or competitive events, such as ski and foot races, rogaining and orienteering, may be permitted in some areas. Deer hunting by stalking is legally permitted on a seasonal basis in parts of the Alpine National Park and Mitchell River National Park, the Avon Wilderness Park and sections of the Gippsland Lakes Coastal Park.

Tourism and recreation in State forest

Read Sturgess and Associates (1995) estimated that State forests in Gippsland attract around 347 000 visitor days per year. Forests close to population centres are popular for activities such as bush-walking, picnicking, forest drives, camping, horse-riding, trail-bike and mountain-bike riding and nature observation. In the more remote areas of State forest activities also include fishing, hunting, rafting, canoeing and four-wheel driving (Read Sturgess and Associates 1995).

Tourism and recreation in alpine resorts

Victoria's alpine resorts are some of Australia's premier tourist attractions and ski-field developments represent the greatest concentration of tourism investment in the state outside Melbourne. The alpine resorts provide a unique recreational experience. During the snow season they provide for downhill and cross country skiing, snowplay and general alpine experience. In the summer period, the resorts offer recreational opportunities such as mountain biking, bushwalking, horse-riding and four-wheel driving.

Mt Hotham Alpine Resort is partially located in the Gippsland region and attracts an average of 97 000 visitors annually, with 234 000 visitor days spent at the resort each year (ARC, unpublished data 1998).

Outdoor education

Outdoor education is an important forest-based activity undertaken by a number of commercial operators, school groups and clubs in the region. Activities include bush walking, kayaking/rafting, mountain bike riding, cross-country skiing, wildlife observation, historic site interpretation and camping. There is an increasing focus on the environment in outdoor education, with these activities used as a link to environment awareness. Activities usually include an interpretation component, particularly those for the Victorian Certificate of Education (VCE) subject 'Outdoor Education', which has components related to human impacts on the natural environment.

Detailed information on Tourism in Gippsland was published in Chapter 8 of the Gippsland Comprehensive Regional Assessment Report.

3 Community telephone survey

The objectives of this study were to identify through the use of survey research:

- community attitudes towards the management and use of forested lands; and
- the level of community dependency on forested lands within the Gippsland RFA region.

In addition, the study sought specific information on the community attitudes towards the management and use of National Parks and State forests within the study area.

3.1 Methodology

3.1.1 Sample size and sample selection

The study was based on a sample size of 1100, which was drawn from all households within the Gippsland RFA region. A sample of this size permits considerable statistical confidence when making inferences from the sample to a single population. The methodology is described in detail in Section 1.1.2 'Community telephone survey'.

In addition to the total sample for the Gippsland RFA region, four sub-samples within the region were also defined. The sub samples were based on the town resource clusters (TRCs) within the Gippsland region—Latrobe Region (inner), Sale, Bairnsdale (inner) and South Coast (Figure 3.1).

3.1.2 Questionnaire design

As the questionnaire asked respondents to make judgements in relation to the use of National Parks and State forests, an explanatory statement was provided to each respondent describing the differences between National Parks and State forests.

> Throughout this questionnaire we will be talking about native forests in National Parks and State forests. In this survey the term National Park includes State Parks. A National Park is an area set aside to protect biodiversity and provide public enjoyment, recreation and education in natural environments. A State Park is similar but usually smaller. Examples are Alpine National Park, Wilsons Promontory National Park, Tarra Bulga National Park, Mitchell River National Park and Holey Plains State Park.
>
> State forests supply timber and other forest products sustainably, provide for open-space recreation, and protect nature conservation, historic and scenic values. Examples are Won Wron, Mullungdung, Colquhoun, Dargo, Aberfeldy, Nunniong Plains and Mt Birregun State forest.

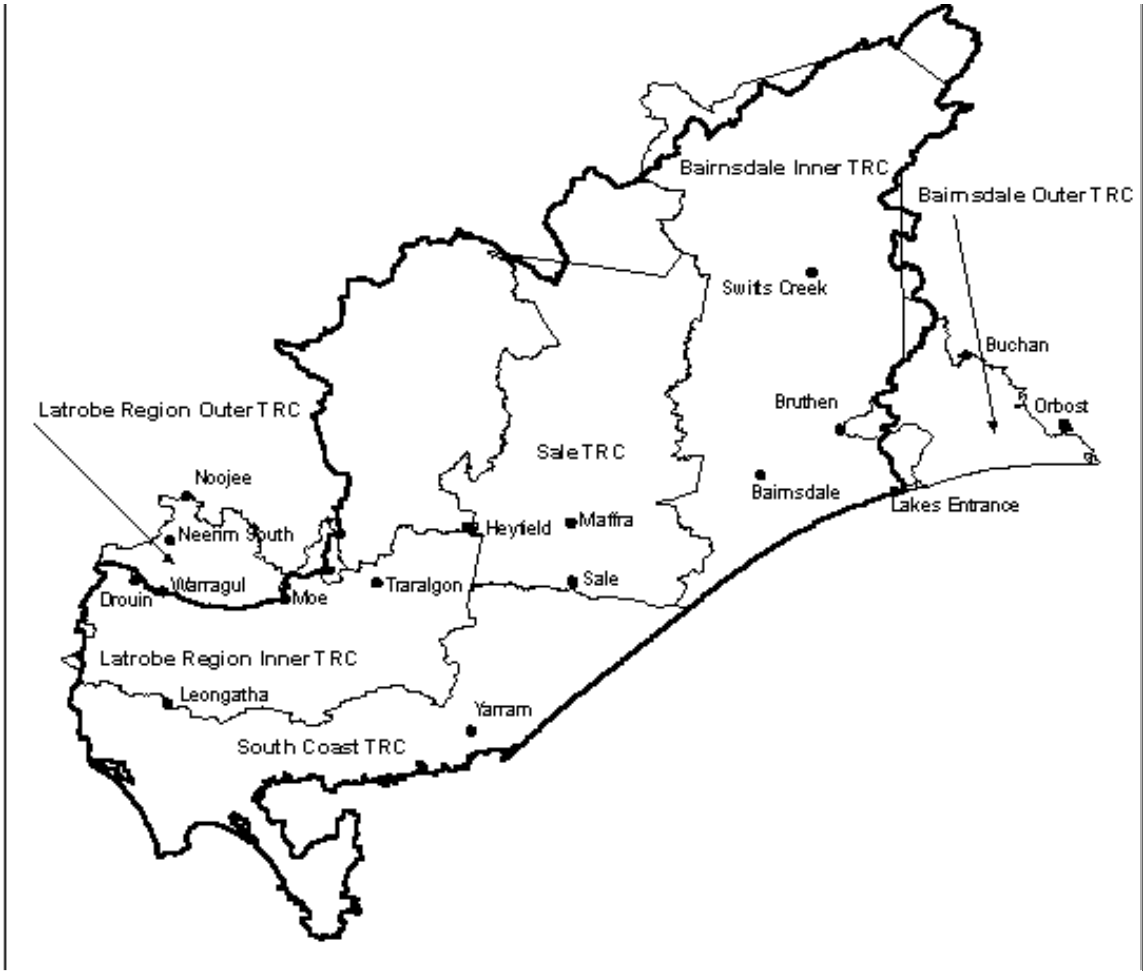

Figure 3.1 Location of town resource clusters

3.2 Sample characteristics

Table 3.1 shows the percentage of male and female respondents for the sample and a comparison with the percentage of males and females identified in the 1996 population census of the Gippsland RFA region. In comparison to census values, and not withstanding that the census was undertaken two years prior to this survey, there is a tendency for the sample to over-sample females in comparison to males.

Table 3.1 Gender of survey respondents

	Sample data		Census data	
Gender	Frequency	Per cent	Count	Per cent
Male	461	41.9	86 529	49.7
Female	639	58.1	87 544	50.3
Total	1 100	100.0	174 073	100.00

Note: Census count is based on ABS (1996) census data using census collector districts which are at least 50% within the boundary of the Gippsland RFA region.
Source: EBC (1998).

Table 3.2 shows the age range of respondents within the Gippsland RFA sample and compares percentages within age ranges between the 1996 census and the sample. This table indicates that the sample ages are all within five per cent of census percentages for the same age ranges.

Table 3.2 Age of survey respondents

	Sample data		Census data		Sample-census
Age range	Frequency	Per cent	Count	Per cent	discrepancy
15–19	57	5.2	12 340	9.4	–4.2
20–24	48	4.4	10 252	7.8	–3.4
25–29	53	4.9	10 995	8.4	–3.5
30–34	61	5.6	12 353	9.4	–3.8
35–39	109	10.0	13 814	10.6	–0.6
40–44	123	11.3	13 404	10.2	1.1
45–49	137	12.6	12 190	9.3	3.3
50–54	105	9.6	9 378	7.2	2.4
55–59	88	8.1	7 787	5.1	3.0
60–64	75	6.9	6 731	5.1	1.8
65–69	71	6.5	6 804	5.2	1.3
70–74	80	7.3	5 949	4.5	2.8
75–79	41	3.8	4 284	3.3	0.5
80–84	28	2.6	2 689	2.0	0.6
85–89	9	0.8	1 362	1.0	–0.2
90+	5	0.5	577	0.4	0.1
Total	1 090	100.0	130 909	100.0	

Note: Census count is based on ABS (1996) census data using census collector districts which are at least 50% within the boundary of the Gippsland RFA region. Census count for age excludes overseas visitors. Ten respondents did not report their age.
Source: EBC (1998).

Respondents identified their usual occupation. For those respondents in the workforce, the occupation given was classified into the eight main occupational categories as identified in the Australian Standard Classification of Occupations (ASCO). Table 3.3 shows the percentage distribution of respondents within the occupational classifications.

Table 3.3 Occupation of sample

Occupation	Frequency	Per cent
Managers and administrators	155	14.1
Professionals	86	7.8
Para-professionals	28	2.6
Tradespersons	101	9.2
Clerks	52	4.7
Salespersons and personal services workers	103	9.4
Plant and machine operators and drivers	22	2.0
Labourers and related workers	484	5.3
Self-employed	9	0.8
Not in the workforce	185	44.0
Total	1 098	100.0

Note: Based on the Australian Standard Classification of Occupations (ASCO). Not in the workforce includes unemployed, retired and persons not in paid employment. Two respondents did not provide their occupation.
Source: EBC (1998).

Respondents were also asked to indicate whether they were employed or any members of their household were employed in specific pre-defined forest industries. Table 3.4 shows that 297 (27.2%) respondents or household members of respondents were employed in one or more forest related industries. The most frequent industry in which respondents or household members were employed was grazing (52.9%) followed by tourism (21.5%) and plantation timber production (13.2%).

Table 3.4 'Are you, or any members in your household, employed in any of the following industries or activities which use land in public native forests?'

Response	Frequency	Per cent
Grazing	157	52.9
Tourism	64	21.5
Plantation timber production	53	17.8
Native forest timber production	44	14.8
Recreational prospecting	25	8.4
Commercial mining	24	8.1
Firewood	17	5.7
Beekeeping	15	5.1
Total	297	100.0

Note: This is a multiple response table, where all rows are independent.
Source: EBC (1998).

An examination of the four main activities identified in Table 3.4 (grazing, tourism, plantation timber production and native forest timber production) across each of the four sub-regions is shown in Table 3.5. It is apparent from Table 3.5 that the Latrobe Region sub-region has the highest concentration of residents participating in activities and industries that use land in public native forests.

Table 3.5 Sub-regional comparison: employed in industries or activities using public native forests

Main industry activity	Latrobe Region		South Coast		Sale		Bairnsdale	
Grazing	62	(39.5%)	49	(31.2%)	30	(19.1%)	16	(10.2%)
Tourism	28	(43.8%)	18	(28.1%)	8	(12.5%)	10	(15.6%)
Plantation timber production	30	(56.6%)	11	(20.8%)	8	(15.1%)	4	(7.5%)
Native forest timber production	25	(56.8%)	8	(18.2%)	4	(9.1%)	7	(15.9%)
Total	114		63		41		35	

Note: Total is based on the number of respondents for the four categories in the table. This is a multiple response table, where all rows are independent.
Source: EBC (1998).

Respondents were also asked if they had any involvement in native forest management, planning or preservation in Victoria. Eleven per cent of the sample indicated they had been involved in these activities (Table 3.6), with 36% of these respondents indicating their involvement was associated with tree planting on their own property or as a member of a group involved in native tree planting (Table 3.7).

Table 3.6 'Have you had any involvement in native forest management, planning or preservation in Victoria?'

Response	Frequency	Per cent
No	977	89.0
Yes	121	11.0
Total	1 098	100.0

Note: Two respondents did not answer this question.
Source: EBC (1998).

Table 3.7 'What type of involvement have you had [in native forest management, planning or preservation in Victoria?]'

Response	Frequency	Per cent
Tree planting (on farm, school or organised)	44	36.4
Environmental group member (Landcare)	24	19.8
Work related	11	9.1
Forest management (government/semi government)	10	8.3
Petitioner, campaigner or protester	8	6.6
Nature study	6	5.0
Plantation establishment	5	4.1
Member Country Fire Authority	4	3.3
Education-training	2	1.7
Other (less than 1)	7	5.8
Total	121	100.0

Source: EBC (1998).

3.3 National Parks

Respondents provided information on their use of National Parks and their attitudes towards the management of National Parks in Victoria.

3.3.1 Use of National Parks

Within the last year an estimated 51% of respondents were found to have visited a National Park in Victoria (Table 3.8).

Table 3.8 'During the last year have you visited any National Park in Victoria?'

Response	Frequency	Per cent
No	539	49.3
Yes	554	50.7
Total	1 093	100.0

Note: Seven respondents did not answer this question.
Source: EBC (1998).

A comparison across the four sub regions, showed significant variation in the use of National Parks, with a relatively lower number of respondents in the Bairnsdale sub-region and relatively higher number of respondents in the South Coast sub-region visiting National Parks (Table 3.9).

Table 3.9 Sub-regional comparison: 'During the last year have you visited a National Park in Victoria?'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
No	265	(50.2%)	48	(32.9%)	100	(49.5%)	126	(58.1%)
Yes	263	(49.8%)	98	(67.1%)	102	(50.5%)	91	(41.9%)
Total	528	(100.0%)	146	(100.0%)	202	(100.0%)	217	(100.0%)

Source: EBC (1998).

Of those respondents who had visited a National Park within the last year, 31% had visited a National Park only once during the last year with 17% visiting once a month or more (Table 3.10).

Table 3.10 'How often have you visited these National Parks?'

Response	Frequency	Per cent
Once a month or more	94	17.2
Once every three months	137	25.0
Once every six months	146	26.7
Once a year	170	31.1
Total	547	100.0

Note: Seven respondents did not answer this question
Source: EBC (1998).

A comparison across sub-regions also indicated a trend towards respondents within the Latrobe Region sub-region visiting national parks less frequently than respondents from within other sub-regions (Table 3.11).

Table 3.11 Sub-regional comparison: 'How often have you visited these National Parks?'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Once a month or more	33	(12.8%)	22	(23.5%)	17	(16.8%)	22	(24.2%)
Once every three months	57	(22.1%)	24	(24.5%)	29	(28.7%)	27	(29.7%)
Once every six months	72	(27.9%)	27	(27.6%)	29	(28.7%)	18	(19.8%)
Once a year	96	(37.2%)	24	(24.5%)	26	(25.7%)	24	(26.4%)
Total	258	(100.0%)	97	(100.0%)	101	(100.0%)	91	(100.0%)

Source: EBC (1998).

Table 3.12 shows Wilsons Promontory National Park (37.8%), Tarra-Bulga National Park (27.1%) and the Alpine National Park (27.1%) were three most frequently visited national parks by respondents within the last year.

Table 3.12 'What was the name of the National Park that you visited?'

Park name	Frequency	Per cent
Wilsons Promontory NP	208	37.8
Tarra-Bulga NP	149	27.1
Alpine NP[1]	98	17.8
Mount Worth SP	32	5.8
Croajingolong NP	29	5.3
Holey Plains SP	22	4.0
Morwell NP	22	4.0
Baw Baw NP	20	3.6
Mitchell River NP	20	3.6
Gippsland Lakes CP	18	3.3
Grampians NP	12	2.2
Lake Tyers SP	10	1.8
Snowy River NP	8	1.5
Cape Conran CP	7	1.3
Other (frequency less than 1%)	173	31.5
Total	550	100.0

[1]Approximately 20% of the Alpine National Park is within the Gippsland RFA region.
Note: Parks in italics are located outside the Gippsland RFA region. This is a multiple response table, where all rows are independent. Four respondents did not answer this question.
Source: EBC (1998).

Table 3.13 shows that the primary activity within National Parks was bushwalking or walking, with 86% of respondents who had visited a National Park within the last year indicating this as an activity undertaken when visiting a National Park. Other common activities undertaken when visiting National Parks included sightseeing (26%), picnics or BBQs (22%), camping (21%), drive or 4WD travel (16%), and fishing or hunting (11%).

Table 3.13 Activities in National Parks

Activity	Frequency	Per cent
Walking or bushwalking	477	86.1
Sightseeing	143	25.8
Picnics or BBQs	123	22.2
Camping	119	21.4
Drive or 4WD travel	89	16.0
Fishing or hunting	63	11.4
Swimming	34	6.1
Skiing	34	6.1
Working	32	5.8
Visit friends or family	23	4.1
Bird watching	16	2.9
Surfing	12	2.2
Animal watching	12	2.2
Horseriding	9	1.6
Peace and quiet	6	1.1
Painting or photography	5	0.9
Other (frequency less than 3)	9	1.6
Total	554	100.0

Note: Frequencies and percentages based on the number of national parks respondents visited. This is a multiple response table, where all rows are independent.
Source: EBC (1998).

3.3.2 Management of National Parks

When respondents were asked if they were interested in the management and use of National Parks in Victoria, 90% either strongly agreed or agreed with the statement that they were interested in the management and use of National Parks in Victoria (Table 3.14).

Table 3.14 'I am interested in the management and use of National Parks in Victoria'

Response	Frequency	Per cent
Strongly agree	243	22.2
Agree	741	68.0
Disagree	101	9.3
Strongly disagree	5	0.5
Total	1 090	100.0

Note: Ten respondents did not answer this question
Source: EBC (1998).

A comparison across the four sub-regions also showed high interest in the management and use of National Parks, although the Bairnsdale sub-region had relatively lower number of respondents interested in this when compared to the remaining sub-regions (Table 3.15).

Table 3.15 Sub-regional comparison: 'I am interested in the management and use of National Parks in Victoria?'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Agree	477	(90.0%)	138	(95.2%)	188	(94.0%)	181	(84.2%)
Disagree	53	(10.0%)	7	(4.8%)	12	(6.0%)	34	(15.8%)
Total	530	(100.0%)	145	(100.0%)	200	(100.0%)	215	(100.0%)

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree.
Source: EBC (1998).

When respondents were asked if they were confident that National Parks are being well managed in Victoria, 61% believed that National Parks are being well managed (Table 3.16).

Table 3.16 'I am confident that National Parks are being well managed in Victoria'

Response	Frequency	Per cent
Strongly agree	47	4.5
Agree	582	56.2
Disagree	341	32.9
Strongly disagree	66	6.4
Total	1 036	100.0

Note: Sixty-four respondents did not answer this question.
Source: EBC (1998).

Table 3.17 shows that 70% of respondents from the Sale sub-region and approximately 60% of respondents from the Latrobe Region and 59% from Bairnsdale sub-regions are confident that National Parks are being well managed in Victoria. However, only 56% of respondents from the South Coast sub-region were confident that National Parks were being well managed.

Table 3.17 Sub-regional comparison: 'I am confident that National Parks are being well managed in Victoria'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Agree	304	(59.7%)	78	(55.7%)	130	(69.1%)	117	(58.8%)
Disagree	205	(40.3%)	62	(44.3%)	58	(30.9%)	82	(41.2%)
Total	509	(100.0%)	140	(100.0%)	188	(100.0%)	199	(100.0%)

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree.
Source: EBC (1998).

Respondents were also asked what they considered the three most important things that needed to be considered in the management of National Parks in Victoria. Twenty-one per cent of the sample indicated a need to maintain public access to National Parks and 19% indicated the need to maintain or improve fire management within National Parks.

Table 3.18 'What do you think are the three most important things that need to be considered in managing National Parks in Victoria'

Response	Frequency	Per cent
Accessible to public	184	21.0
Fire control management (maintain and better)	166	18.9
Protection of native flora and fauna	115	13.1
Wildlife protection	103	11.7
Eradicate feral animals and weeds	100	11.4
Protect environment and biodiversity	99	11.3
Maintain natural vegetation	89	10.1
Maintenance of parks (undergrowth, cleanliness)	77	8.8
Rubbish and litter control	76	8.7
Establish public facilities (BBQs, camping grounds)	72	8.2
Control visitor use and activities	59	6.7
Maintain walking tracks	56	6.4
More park rangers	47	5.4
Professional management	41	4.7
Preservation for future generations	38	4.3
More public education and information	38	4.3
Allow cattle grazing	36	4.1
Restrict access or control access	36	4.1
Control development	35	4.0
Replanting and reforestation	33	3.8
Maintenance of roads and bridges	32	3.6
Control commercial interests	31	3.5
Control motor bikes, 4WDs, dogs, shooters, horse riding	27	3.1
Maintain water catchments	26	3.0
Control logging	19	2.2
Safety requirements for park users	19	2.2
Balance use	19	2.2
Sustainability of use	18	2.1
Stop logging	17	1.9
Accessible or visible maps or signage	14	1.6
Allow a range of uses	13	1.5
Maintain access for elderly or disabled	10	1.1
Control soil erosion	10	1.1
Increase number and size of National Parks	9	1.0
Other (frequency of 1% or less)	121	13.8
Number of respondents	878	100.0

Note: This is a multiple response table, where all rows are independent. 222 (20.2%) of respondents were unable to identify issues important to the management of National Parks.
Source: EBC (1998).

3.3.3 Dependency on National Parks

Table 3.19 shows that only 13% of respondents indicated they were dependent upon National Parks for their livelihood. A comparison across the four sub-regions indicated no significant variation in dependence on National Parks across the four sub-regions.

Table 3.19 'I am dependent upon National Parks for my livelihood'

Response	Frequency	Per cent
Strongly agree	27	2.5
Agree	113	10.4
Disagree	773	71.0
Strongly disagree	175	16.1
Total	1 088	100.0

Note: Twelve respondents did not answer this question.
Source: EBC (1998).

Table 3.20 shows a very high dependency on National Parks by the tourism industry, with 73% of respondents indicating that tourism businesses in the area in which they live were dependent upon National Parks. The high levels of perceived dependence on National Parks by the tourism industry was consistent across each of the sub-regions, with no significant variation in dependency across the four sub-regions.

Table 3.20 'Tourism businesses in this area depend on National Parks'

Response	Frequency	Per cent
Strongly agree	168	15.6
Agree	619	57.5
Disagree	266	24.7
Strongly disagree	24	2.2
Total	1 077	100.0

Note: Twenty-three respondents did not answer this question.
Source: EBC (1998).

Eighty-six per cent of respondents indicated that many people in the area in which they lived used National Parks for recreation (Table 3.21). No significant variation in dependence upon National Parks was found across the four sub-regions.

Table 3.21 'Many people in this area use National Parks for recreation'

Response	Frequency	Per cent
Strongly agree	249	23.2
Agree	680	63.3
Disagree	133	12.4
Strongly disagree	12	1.1
Total	1 074	100.0

Note: Twenty-six respondents did not answer this question.
Source: EBC (1998).

Table 3.22 shows that 80% of respondents believed that National Parks were important to the local economy of the area in which they lived.

Table 3.22 'National Parks are important to the local economy in this area'

Response	Frequency	Per cent
Strongly agree	226	20.9
Agree	642	59.3
Disagree	202	18.7
Strongly disagree	12	1.1
Total	1 082	100.0

Note: Eighteen respondents did not answer this question.
Source: EBC (1998).

Table 3.23 shows that while respondents within all four sub-regions considered National Parks to be important to their local economy, the perceived importance of National Parks to the local economy was relatively lower in the Latrobe Region sub-region when compared to the remaining three sub-regions.

Table 3.23 Sub-regional comparison: 'National Parks are important to the local economy in this area'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Agree	398	(75.7%)	119	(82.1%)	168	(85.7%)	183	(85.1%)
Disagree	128	(24.3%)	26	(17.9%)	28	(14.3%)	32	(14.9%)
Total	526	(100.0%)	145	(100.0%)	196	(100.0%)	215	(100.0%)

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree.
Source: EBC (1998).

3.4 State forests

Respondents provided information on their use of State forests and their attitudes towards the management of State forests in Victoria.

3.4.1 Use of State forests

Table 3.24 indicates that during the last year 35% of respondents indicated they had visited a State forest in Victoria. This compares with 51% of the sample who indicated they had visited a National Park within the last year.

Table 3.24 'During the last year, have you visited any State forests in Victoria?'

Response	Frequency	Per cent
No	716	65.2
Yes	383	34.8
Total	1 099	100.0

Note: One respondent did not answer this question.
Source: EBC (1998).

Table 3.25 shows that within the Latrobe Region and South Coast sub-regions a significantly greater number of respondents use State forests when compared to respondents from either the Sale or Bairnsdale sub-regions.

Table 3.25 Sub-regional comparison: 'During the last year have you visited any State forests in Victoria?'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
No	373	(69.9%)	98	(67.1%)	121	(59.6%)	124	(57.4%)
Yes	161	(30.1%)	48	(32.9%)	82	(40.4%)	92	(42.6%)
Total	534	(100.0%)	146	(100.0%)	203	(100.0%)	216	(100.0%)

Source: EBC (1998).

Amongst those respondents who had visited a State forest within the last year, 34% indicated they visited State forests once a month or more (Table 3.26). The frequency of use of State forests is in marked contrast to the use of National Parks where the majority of respondents were found to have visited National Parks only once during the last year. Clearly while a greater number of people have visited a National Park within the last year when compared to a State forest, the frequency of use of State forests is significantly higher than that of National Parks.

Table 3.26 'How often have you visited these State forests?'

Response	Frequency	Per cent
Once a month or more	122	33.6
Once every three months	81	22.3
Once every six months	76	20.9
Once a year	84	23.1
Total	363	100.0

Note: Twenty respondents did not answer this question.
Source: EBC (1998).

A comparison across the three sub-regional samples indicated that 52% of respondents from the South Coast sub-region and 42% of respondents from the Bairnsdale sub-region had visited a State forests at least once a month or more (Table 3.27). This is significantly higher than the 27% of respondents from the Latrobe Region and Sale sub-regions who had visited a State forest once a month or more.

Table 3.27 Sub-regional comparison: 'How often have you visited these State forests?'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Once a month or more	41	(27.0%)	21	(52.5%)	22	(27.2%)	38	(42.2%)
Once every three months	37	(24.3%)	6	(15.0%)	16	(19.8%)	22	(24.4%)
Once every six months	30	(19.7%)	8	(20.0%)	22	(27.2%)	16	(17.8%)
Once a year	44	(28.9%)	5	(12.5%)	21	(25.9%)	14	(15.6%)
Total	152	(100.0%)	40	(100.0%)	81	(100.0%)	90	(100.0%)

Source: EBC (1998).

The type of activity respondents engaged in when visiting State forests were very similar to the type of activities they engaged in when visiting National Parks (Table 3.2). As was the case when visiting National Parks, the primary activity was walking or bushwalking. However, while 86% of visitors to National Parks reported this as an activity only 50% of visitors to State forests reported this as an activity.

Table 3.28 Activities in State forests

Response	Frequency	Per cent
Walking or bushwalking	190	50.0
Drive or 4WD travel	122	32.1
Picnics or BBQs	70	18.4
Sightseeing	67	17.6
Firewood collection	47	12.4
Camping	42	11.1
Fishing or hunting	36	9.5
Working	34	8.9
Horseriding	25	6.6
Visit friends or family	7	1.8
Bird watching	7	1.8
Prospecting or fossicking	7	1.8
Swimming	6	1.6
Animal watching	5	1.3
Skiing	4	1.1
Peace and quiet	4	1.1
Painting or photography	1	0.3
Number of respondents	380	100.0

Note: Frequencies and percentages based on the number of State forest respondents visited. This is a multiple response table, where all rows are independent.
Source: EBC (1998).

In the telephone survey, respondents were asked to name the State forests that they visited. However, a majority of respondents were unable to name the forest area or could only name the nearby township. For these reasons, the State forests that people visited has not been listed.

3.4.2 Management of State forests

Table 3.29 shows that 85% of respondents indicated they were interested in the management and use of State forests in Victoria. This percentage is similar to the 90% of respondents who indicated they were interested in the management and use of National Parks in Victoria. There were no significant differences across sub-regions in relation interest in the management and use of State forests.

Table 3.29 'I am interested in the management and use of State forests in Victoria'

Response	Frequency	Per cent
Strongly agree	193	17.8
Agree	734	67.5
Disagree	155	14.3
Strongly disagree	5	0.5
Total	1 087	100.0

Note: Thirteen respondents did not answer this question.
Source: EBC (1998).

When respondents were asked if they were confident State forests are being well managed in Victoria, 56% believed that State forests are being well managed (Table 3.30). Although this percentage is lower than that found for National Parks (61%), the difference is not statistically significant.

Table 3.30 'I am confident that State forests are being well managed in Victoria'

Response	Frequency	Per cent
Strongly agree	35	3.4
Agree	542	52.4
Disagree	384	37.1
Strongly disagree	74	7.1
Total	1 035	100.0

Note: Sixty-five respondents did not answer this question.
Source: EBC (1998).

There were significant and marked differences across the four sub-regions in relation to respondents confidence in the management of State forests in Victoria (Table 3.31). The South Coast sub-region, as was the case for National Parks, had the lowest percentage of respondents expressing confidence in the management of State forests. The Sale sub-region had the highest percentage of respondents that expressed confidence in the management of State forests in Victoria.

Table 3.31 Sub-regional comparison: 'I am confident that State forests are being well managed in Victoria'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Agree	274	(53.5%)	69	(49.6%)	122	(65.6%)	112	(56.6%)
Disagree	238	(46.5%)	70	(50.4%)	64	(34.4%)	86	(43.4%)
Total	512	(100.0%)	139	(100.0%)	186	(100.0%)	198	(100.0%)

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree.
Source: EBC (1998).

As was the case for National Parks, respondents were asked to consider the three most important things that need to be considered in the management of State forests in Victoria. Table 3.32 shows that the most frequently raised management issues associated with State forests were fire management and control (22%) and the need for replanting and reforestation (20%).

Table 3.32 'What do you think are the three most important things that need to be considered in managing State forests in Victoria?'

Response	Frequency	Per cent
Fire control management (maintain and better)	179	21.7
Replanting and reforestation	165	20.0
Accessible to public	106	12.8
Control logging and timber removal	103	12.5
Protection of native flora and fauna	83	10.0
Eradicate feral animals and weeds	82	9.9
Wildlife protection	74	9.0
Maintenance of parks (undergrowth, cleanliness)	66	8.0
Protection environment and biodiversity	63	7.6
Sustainability of use	46	5.6
Maintain natural vegetation	44	5.3
Professional management	44	5.3
Maintenance of roads and bridges	43	5.2
Establish public facilities (BBQs, camping grounds)	41	5.0
Rubbish and litter control	39	4.7
Maintain water catchments	32	3.9
Control motor bikes, 4WDs, dogs, shooters, horseriding	30	3.6
Balance use	30	3.6
Allow cattle grazing	29	3.5
Maintain walking tracks	28	3.4
More public education and information	25	3.0
Control visitor use and activities	24	2.9
More park rangers	23	2.8
Selective logging	22	2.7
Stop logging	21	2.5
Preservation for future generations	20	2.4
Restrict access or control access	14	1.7
Control development	24	2.9
Accessible or visible maps or signage	12	1.5
Access to waste logs for public	12	1.5
Ban clear felling	12	1.5
Logging industry accountable for practices	10	1.2
Control use through resource/land management	9	1.1
Safety requirements for park users	9	1.1
Maintain recreational value	9	1.1
Set aside areas for logging	9	1.1
Other (frequency of 1% or less)	151	18.3
Number of respondents	826	100.0

Note: This is a multiple response table, where all rows are independent. 274 (24.9%) of respondents were unable to identify issues important to the management of State forests.
Source: EBC (1998).

3.4.3 Dependency on State forests

Table 3.33 shows that 14% of respondents indicated they were dependent upon State forests for their livelihood. There was no significant variation in dependency upon State forests across each of the four sub-regions. This is similar to the response for National Parks.

Table 3.33 'I am dependent on State forests for my livelihood'

Response	Frequency	Per cent
Strongly agree	28	2.6
Agree	125	11.5
Disagree	787	72.2
Strongly disagree	150	13.8
Total	1 090	100.0

Note: Ten respondents did not answer this question.
Source: EBC (1998).

Table 3.34 shows that 61% of respondents indicated tourism businesses in their area were dependent upon State forests. The same question asked in relation to National Parks found that 73% of respondents indicated that tourism businesses in their area were dependent upon National Parks.

Table 3.34 'Tourism businesses in this area depend on State forests'

Response	Frequency	Per cent
Strongly agree	102	9.6
Agree	542	50.8
Disagree	384	36.0
Strongly disagree	38	3.6
Total	1 066	100.0

Note: Thirty-four respondents did not answer this question.
Source: EBC (1998).

The Latrobe Region sub-region, when compared to other sub-regions, was found to have significantly fewer respondents who indicated tourism businesses in their area were dependent upon State forests (Table 3.35).

Table 3.35 Sub-regional comparison: 'Tourism businesses in this area depend on State forests'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Agree	279	(53.8%)	88	(61.5%)	133	(68.9%)	144	(68.2%)
Disagree	240	(46.2%)	55	(38.5%)	60	(31.1%)	67	(31.8%)
Total	519	(100.0%)	143	(100.0%)	193	(100.0%)	211	(100.0%)

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree.
Source: EBC (1998).

Table 3.36 indicates that 78% of respondents believed many people in their area used State forests for recreation. This compares to 86% of respondents who believed many people in their area used National Parks for recreation.

Table 3.36 'Many people in this area use State forests for recreation'

Response	Frequency	Per cent
Strongly agree	156	14.7
Agree	669	62.9
Disagree	220	20.7
Strongly disagree	19	1.8
Total	1 064	100.0

Note: Thirty-six respondents did not answer this question.
Source: EBC (1998).

Table 3.37 shows significant variation across the four sub-regions in the perceived use of State forests for recreation. For instance, within the Sale sub-region 87% of respondents perceived that many people in the area used State forests for recreation, while within the Latrobe Region and South Coast sub-regions 74% of respondents perceived many people in their area used State forests for recreation.

Table 3.37 Sub-regional comparison: 'Many people in this area use State Forests for recreation'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Agree	388	(73.9%)	104	(73.8%)	168	(86.6%)	165	(80.9%)
Disagree	137	(26.1%)	37	(26.2%)	26	(13.4%)	39	(19.1%)
Total	525	(100.0%)	141	(100.0%)	194	(100.0%)	204	(100.0%)

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree.
Source: EBC (1998).

Table 3.38 shows that 80% of respondents believed that State forests were important to the local economy of the area in which they lived. This compares to 80% of

respondents believed National Parks were important to the local economy of their area.

Table 3.38 'State forests are important to the local economy in this area'

Response	Frequency	Per cent
Strongly agree	215	19.9
Agree	655	60.5
Disagree	193	17.8
Strongly disagree	20	1.8
Total	1 083	100.0

Note: Seventeen respondents did not answer this question.
Source: EBC (1998).

Table 3.39 shows significant variation across the four sub-regions in the importance of State forests to the local economy, with 91% of respondents from the Bairnsdale sub-region indicating State forests were important to the local economy in comparison to 70% from the South Coast sub-region.

Table 3.39 Sub-regional comparison: 'State forests are important to the local economy in this area'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
Agree	406	(77.6%)	101	(70.1%)	169	(83.7%)	194	(90.7%)
Disagree	117	(22.4%)	43	(29.9%)	33	(16.3%)	20	(9.3%)
Total	523	(100.0%)	144	(100.0%)	202	(100.0%)	214	(100.0%)

Note: Percentages for strongly agree and agree have been recoded to agree. Percentages for disagree and strongly disagree have been recoded to disagree.
Source: EBC (1998).

3.5 Future industry development

Table 3.40 shows that within the Gippsland RFA region, 75% believed that tourism would be the main industry in their area within the next 20 years and 74% also believed that agriculture would be the main industry in their area in the next 20 years. In addition to the industries reported in Table 3.40, which were pre-defined, 41 respondents (3.8%) indicated that power generation would be an additional main industry in their area within the next 20 years.

Table 3.40 'What do you think will be the main industries in your area in the next 20 years?'

Response	Frequency	Per cent of sample
Tourism	812	75.3
Agriculture	797	73.9
Plantation timber production	666	61.8
Native forest timber production	477	44.2
Manufacturing	337	31.3
Commercial firewood cutting	297	27.6
Commercial mining	178	16.5
Beekeeping	177	16.4
Gold prospecting	86	8.0
Number of respondents	1 078	100.0

Note: This is a multiple response table, where all rows are independent. Twenty-two respondents did not answer this question.
Source: EBC (1998).

A comparison of perceived main industry development across the four sub-regions showed significant variation in the type of industries respondents believed would develop in their area. For instance, in the Latrobe Region and South Coast sub-regions

the main industries included tourism, agriculture and plantation timber production; in the Sale sub-region the main industries included tourism, agriculture and native and plantation timber production; while in the Bairnsdale sample the main industries respondents believed would be in their area included tourism and native and plantation timber production.

Table 3.41 Sub-regional comparison: 'What do you think will be the main industries in your area in the next 20 years?'

Main activity	Latrobe Region		South Coast		Sale		Bairnsdale	
Tourism	328	(62.8%)	130	(89.0%)	180	(89.6%)	174	(83.3%)
Agriculture	402	(77.0%)	131	(89.7%)	182	(90.5%)	82	(39.2%)
Plantation timber production	327	(62.6%)	91	(62.3%)	155	(77.1%)	93	(44.5%)
Native forest timber production	205	(39.3%)	57	(39.0%)	135	(67.2%)	80	(38.3%)
Manufacturing	183	(35.1%)	37	(25.3%)	85	(42.3%)	32	(15.3%)
Commercial firewood cutting	102	(19.5%)	46	(31.5%)	99	(49.3%)	50	(23.9%)
Commercial mining	105	(20.1%)	13	(8.9%)	34	(16.9%)	26	(12.4%)
Beekeeping	43	(8.2%)	38	(26.0%)	59	(29.4%)	37	(17.7%)
Gold prospecting	32	(6.1%)	9	(6.2%)	20	(10.0%)	25	(12.0%)
Total	522	(100.0%)	146	(100.0%)	201	(100.0%)	209	(100.0%)

Note: This is a multiple response table, where all rows are independent.
Source: EBC (1998).

3.6 Changes in the use of native forests affecting communities

Seventy-two per cent of respondents indicated there had not been changes in the use of native forests which had affected their community (Table 3.42).

Table 3.42 'In the last five years, have there been changes in the use of native forests in your area which have affected the community in which you live?'

Response	Frequency	Per cent
No	772	71.1
Yes	314	28.9
Total	1 086	100.0

Note: Fourteen respondent did not answer this question.
Source: EBC (1998).

Table 3.43 shows some variation across the four sub-regions in relation to whether changes in the use of native forests have affected the community in which the respondent lived. Within the Bairnsdale sub-region 42% of respondents indicated there had been a change in the use of native forests which had affected their community, while in the remaining three sub-regions 24%, 28% and 30% indicated their had been changes in the use of native forests which had affected their community.

Table 3.43 Sub-regional comparison: 'In the last five years, have there been changes in the use of native forests in your area which have affected the community in which you live?'

Response	Latrobe Region		South Coast		Sale		Bairnsdale	
No	405	(76.0%)	103	(70.5%)	139	(72.0%)	125	(58.4%)
Yes	128	(24.0%)	43	(29.5%)	54	(28.0%)	89	(41.6%)
Total	533	(100.0%)	146	(100.0%)	193	(100.0%)	214	(100.0%)

Source: EBC (1998).

The type of changes in the use of native forests, which affected communities, are given in Table 3.44 The three most common changes included restrictions on native timber harvesting (15%), loss of population (10%) and loss of employment opportunities (8%).

Table 3.44 'What were these changes [in the use of native forests that affected the community in which you live]?'

Response	Frequency	Per cent
Restrictions on native timber harvesting	46	14.6
Loss of population	33	10.5
Loss of employment (mill closure, logging stopped)	26	8.3
Restricting access	24	7.6
Friction in community between groups	22	7.0
Controls on firewood, fence post collection	19	6.1
Privitisation of logging and State parks	14	4.5
Stopped cattle grazing	14	4.5
Increased timber harvesting	14	4.5
More plantations	13	4.1
Changes to logging laws	8	2.5
Increased traffic on public roads	7	2.2
Changes to Wilsons Promontory	7	2.2
Increase fire risk from undergrowth	6	1.9
Tracks closed to 4WD, motorbikes	4	1.3
Increase in tourism development	4	1.3
Other (frequency of 1% or less)	121	38.5
Number of respondents	314	100.0

Note: This is a multiple response table, where all rows are independent.
Source: EBC (1998).

4 Forest activity and linkages by town resource cluster

This section provides an analysis of the results of industry surveys conducted as part of the Social Assessment (CRA) for the Gippsland RFA region. The purpose of this section is to identify communities that are reliant on forest based industry activity in the region and to identify significant relationships between specific areas of forest resource in the Gippsland RFA region and communities dependent on that resource.

4.1 Methodology

The methods used in the collection of data for this report include: mail surveys of timber processing industries (mills), timber industry contractors, timber industry employees, tourism businesses and other forest industries including apiarists, graziers and mining and prospecting businesses; and secondary data from the Australian Bureau of Resource Economics (ABARE 1998). Employment and expenditure catchment analysis has also been undertaken to assist in determining the relationship between forest resource and towns and communities dependent upon that resource within the Gippsland RFA region.

The number of surveys distributed to specific forest industries and the response rate from these industries is given in Table 4.1. As the surveys are not a census, caution needs to be used in generalising or extrapolating survey data to specific industry groups as a whole.

Table 4.1 Return rate for questionnaires distributed to forest industries and business

Type of forest industry	Number returned	Number distributed	Return rate (%)
Timber processing (mills)	12	24	50.0%
Forest contractors	24	79	30.4%
Prospecting and mining	8	109	7.3%
Apiarist	9	78	11.5%
Grazing	1	63	1.6%
Mining (large)	2	21	9.5%
Tourism	11	113	9.7%
Total	67	488	13.7%

Source: EBC (1999).

The return rate for employee questionnaires is not given as in many instances the number of employees within the industry is uncertain, due to the seasonal and part time nature of the work. In addition, employees from several timber processing industries were not surveyed again, as survey information was available from previous social assessments undertaken in the Central Highlands and North East regions.

Table 4.2 Number of forest, timber and tourism industry employee questionnaires returned

Type of forest industry	Number returned
Timber processing (mills)	67
Forest contractors	34
Prospecting and mining	12
Apiarist	4
Grazing	3
Tourism	33
Central Highlands RFA	341
North East RFA	25
Total	519

Note: Questionnaires from the Central Highlands and North East social assessments are based on those industries that obtained a percentage of their resource from the Gippsland RFA region.
Five employee questionnaires were sent to each of the large mining companies.
Source: EBC (1999).

An examination of the geographic distribution of forest industries that were reliant on resource from the Gippsland RFA region or on access to public native forests within this region indicated distinct regional grouping or clustering of towns. The geographic clustering of towns, known as town resource clusters (TRCs) is shown in Figure 4.1.

Within the Gippsland RFA region four TRCs were identified which included (a) the Latrobe Region (inner) TRC, (b) South Coast TRC, (c) Sale TRC and (d) Bairnsdale (inner) TRC. It was also found that several forest industries were located in towns outside but adjacent to the Gippsland RFA region. One TRC, identified as the Latrobe Region (outer) TRC, was located outside the Gippsland RFA region and to the north of the Latrobe Region (inner) TRC. The second TRC, identified as the Bairnsdale (outer) TRC, was again located outside the Gippsland RFA region and to the east of the Bairnsdale (inner) TRC (Figure 4.1). Within this section of the report, the six TRCs identified in Figure 4.1 are used to summarise information about the distribution and location of forest industries and employees. However, neither the Sale nor South Coast TRCs contain any timber mills, but remain geographically distinct from all other TRCs. As such, the Sale and South Coast TRCs are only reported on where relevant.

4.2 Native timber processing industries

Native timber processing industries include all timber mills or industries that draw a percentage of their resource from forest management areas (FMAs) located within the Gippsland RFA region.

4.2.1 Use of resource

Table 4.3 clearly shows the relationship between timber processing industries located within specific TRCs and the use of resource from FMAs. With the exception of mills at Heyfield and Warragul and to a lesser extent the APP Maryvale mill, mills located within the Latrobe Region (inner and outer) TRCs draw the majority of their resource from the Central Gippsland FMA. Similarly, with the exception of mills at Swifts Creek and Bairnsdale, mills within the Bairnsdale (inner and outer) TRCs all draw the majority of their resource from the Tambo FMA. What Table 4.3 suggests is that any change in resource in the Central Gippsland FMA is likely to effect mills in the

Latrobe Region (inner and outer) TRCs and that changes in resource in the Tambo FMA are likely to effect the mills in the Bairnsdale (inner and outer) TRCs.

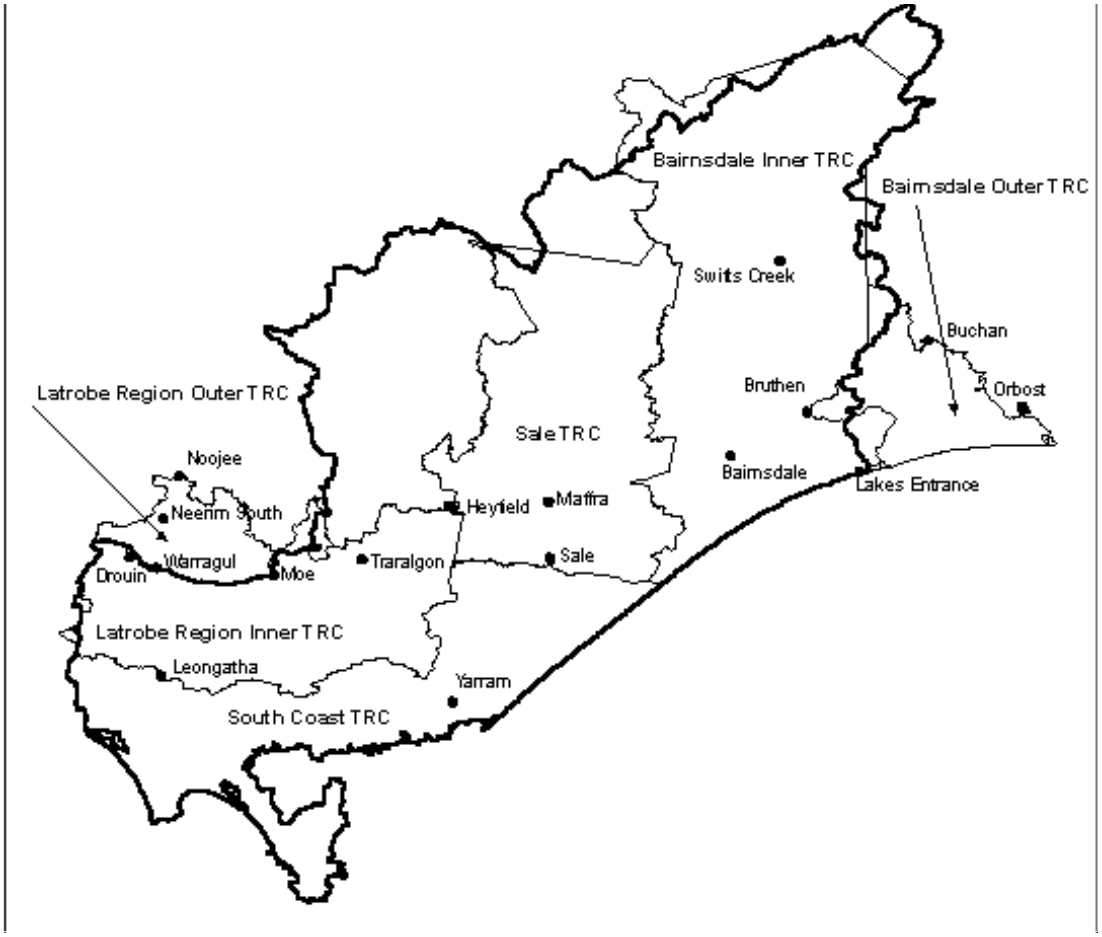

Figure 4.1 Location of town resource clusters

Table 4.3 Percentage of resource from Forest Management Areas

Town in which mill located	Forest Management Areas						
	Tambo	Central Gipps a	Central Gipps b	Wodonga	Central	Dandenong	Other
Latrobe Region (outer)							
Drouin West		5	95				
Erica		13	87				
Neerim South		100					
Noojee		2	98				
Rokeby		1	99				
Latrobe Region (inner)							
Heyfield		31	69				
Leongatha		3	97				
Longwarry		1	99				
Maryvale		89				11	
Bairnsdale (inner)							
Bairnsdale	73	18	9				
Bairnsdale	100						
Ensay North	100						
Mt Taylor	95	5					
Swifts Creek	73			27			
Bairnsdale (outer)							
Buchan	100						
Buchan South	48						52
Marlo	15						85
Outside Gippsland RFA							
Benalla		45			28		27
Corryong	18			82			
Dandenong South	3		21		44	31	1
Hampton Park		100					

a includes the percent of resource sourced from the Central Gippsland FMA within the Gippsland RFA region.
b includes the percent of resource sourced from the Central Gippsland FMA outside the Gippsland RFA region.
Note: Other includes East Gippsland FMA (Buchan South mill and Marlo mill), Wangaratta FMA (Dandenong South mill) and Benalla-Mansfield FMA (Benalla mill). Values are percentages. Information was not available for industries located at North Geelong.
Source: ABARE (1999) and information from timber industry surveys.
Prepared by: EBC (1999).

4.2.2 Location of timber processing industries

Table 4.4 and Figure 4.2 show the location of timber processing industries that draw a percentage of resource from FMAs located within the Gippsland RFA region. Of the 22 timber processing industries that draw resource from the Gippsland RFA region, 13 mills (59%) are located outside the boundary of the Gippsland RFA region. In addition, Table 4.4 shows that the APP Maryvale mill generates approximately two-thirds of all employment by timber processing industries.

Table 4.4 Location of timber processing industries and number of employees

Town location	Number of employees	Percentage of employees
Maryvale	940	62.3
Heyfield	150	9.9
Drouin West	70	4.6
Dandenong South	47	3.1
Bairnsdale[1]	41	2.7
Nth Geelong	35	2.3
Buchan	34	2.2
Benalla	26	1.7
Corryong	26	1.7
Swifts Creek	21.5	1.4
Mt Taylor	21	1.4
Ensay North	16.5	1.1
Erica	13.5	0.9
Noojee	13	0.8
Neerim South	12.5	0.8
Rokeby	11.5	0.7
Longwarry	10.5	0.7
Leongatha	8	0.5
Hampton Park	6	0.4
Buchan South	3	0.2
Marlo	2	0.2
Total number of employees	1508	100.0

[1]There are two timber processing industries located at Bairnsdale.
Notes:
Part-time and casual employees have been counted as 0.5.
Employment is total employment within the industry and has not been proportionally adjusted in terms of volumes of public native hardwood processed.
Source: ABARE and DNRE(Victoria). Includes all mills receiving sawlog or residual from the Gippsland RFA region during 1997–98.
Prepared by: EBC (1999).

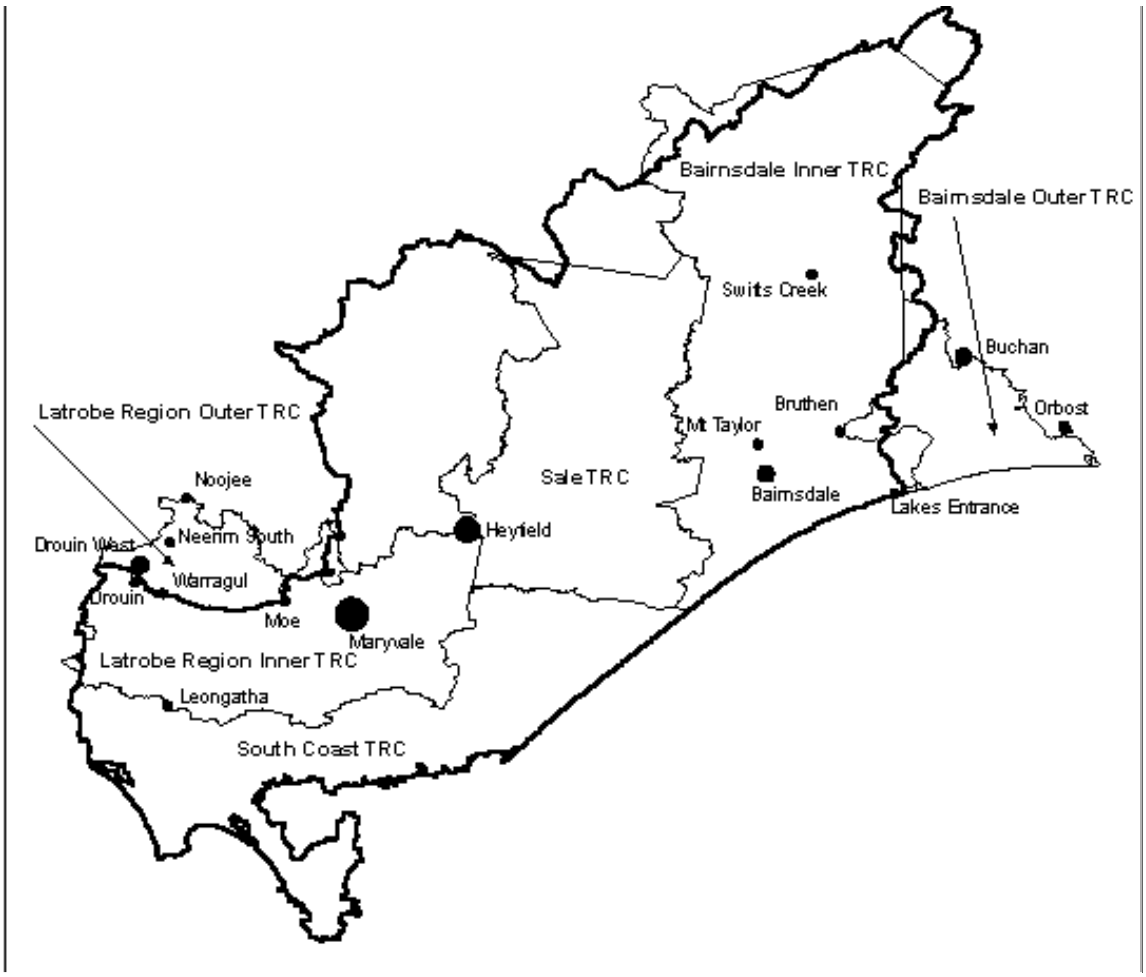

Figure 4.2 Location of timber processing industries

Six town resource clusters (TRCs) were defined on the basis of the geographic distribution of timber processing industries and resource drawn from the FMAs (Figure 4.1). The Latrobe Region TRC (inner and outer) consisted of nine mills with 1229 employees. In addition, the Bairnsdale TRC (inner and outer) had 8 mills and 139 employees. As shown in Table 4.5, the South Coast TRC and Sale TRC represented two TRCs within the Gippsland RFA region with no mills but which consisted of towns geographically distinct from the Latrobe Region and Bairnsdale TRCs.

As shown in Table 4.5 the Latrobe Region (inner) TRC has 73.5% of all industry employees and the Bairnsdale (inner) TRC has a further 6.6% of all industry employees.

Table 4.5 Location of timber processing industries and number of employees

Town resource cluster	Number of employees	Percentage of employees
Within the Gippsland RFA region		
Latrobe Region (inner)	1 108.5	73.5
Bairnsdale (inner)	100.0	6.6
South Coast	0	0.0
Sale	0	0.0
Outside the Gippsland RFA region		
Latrobe Region (outer)	120.5	8.0
Bairnsdale (outer)	39.0	2.6
Other locations	140	9.3
Total number of employees	1 508	100.0

Note: There are two timber processing industries located at Bairnsdale.
Part-time and casual employees have been counted as 0.5.
Source: ABARE and DNRE (Victoria). Includes all mills receiving sawlog or residual from the Gippsland RFA region in 1997–98.
Prepared by: EBC (1999).

4.2.3 Residential location of employees

Table 4.6 and Figure 4.3 shows the residential location of timber processing industry employees. The residential location of employees is shown in relation to the TRC in which the industry they are employed is located. For instance, employee residential locations for the Bairnsdale (inner) TRC are for all employees who are employed in industries located within this TRC.

What is apparent from Table 4.6 is that the location of employment and the residential location of employees are generally constrained to a specific TRC. This is most noticeable for the Bairnsdale (inner and outer) TRCs, where the place of employment and the residential location of employees are generally located within the same TRC. In the case of the Latrobe Region (inner and outer) TRCs there is some overlap in relation to the employee residential locations between these TRCs. For instance, 4 employees whose place of work was located within the Latrobe Region (inner) TRC resided in Warragul which is located within this Latrobe Region (outer) TRC. However, 31.5 employees whose place of work was in the Latrobe Region (outer) TRC also resided in Warragul. Towns in which employees were resident and where their place of employment was in either the inner or outer Latrobe Region TRCs included Warragul, Buln Buln, Moe, Drouin and Traralgon.

Table 4.6 Residential location of employees

TRC and town location	Number of employees	Percentage of employees
Bairnsdale (inner) TRC		
Bairnsdale	62.0	62.0
Bruthen	22.0	22.0
Swifts Creek	16.0	16.0
Total employees	100.0	100.0
Bairnsdale (outer) TRC		
Buchan	25.5	65.4
Heyfield	8.5	21.8
Buchan South	3.0	7.7
Orbost	2.0	5.1
Total employees	39.0	100.0
Latrobe Region (inner) TRC		
Traralgon	483.0	43.6
Heyfield	143.0	12.9
Morwell	113.0	10.2
Moe	31.0	2.8
Hazelwood North	35.0	3.2
Tyers	31.0	2.8
Glengarry	27.0	2.4
Churchill	19.0	1.7
Traralgon South	19.0	1.7
Gormandale	15.5	1.4
Mirboo North	15.5	1.4
Rosedale	15.5	1.4
Toongabbie	15.5	1.4
Yinnar South	15.5	1.4
Jeeralang Junction	12.0	1.1
Newborough	12.0	1.1
Callignee	8.0	0.7
Cowwarr	8.0	0.7
Flynns Creek	8.0	0.7
Leongatha	8.0	0.7
Thorpdale	8.0	0.7
Drouin	7.5	0.7
Callignee South	4.0	0.4
Glengarry West	4.0	0.4
Glenmaggie	4.0	0.4
Maffra	4.0	0.4
Trafalgar	4.0	0.4
Warragul	4.0	0.4
Wonwron	4.0	0.4
Yallourn	4.0	0.4
Yallourn North	4.0	0.4
Yinnar	4.0	0.4
Sale	3.9	0.4
Rokeby	3.0	0.3
Buln Buln	2.5	0.2
Lakes Entrance	2.0	0.2
Swifts Creek	2.0	0.2
Other towns (1 employee)	5.0	0.5
Total employees	1 108.5	100.0
Latrobe Region (outer) TRC		
Warragul	31.5	26.1
Beaconsfield	17.5	14.5
Buln Buln	17.5	14.5
Longwarry	17.5	14.5
Noojee	10.5	8.7
Drouin	8.5	7.1
Erica	5.0	4.1
Moe	5.0	4.1
Rawson	3.5	2.9
Neerim South	2.0	1.7
Traralgon	2.0	1.7
Total employees	120.5	100.0
Other locations	140.0	
Total number of employees	1 508.0	100.0

Note: Table shows the residential location of employees, for employees where the location of their employment is within a TRC. Part-time and casual employees have been counted as 0.5.
Source: EBC (1999).

Although as indicated there is some minor overlap between the Latrobe Region (inner) and Latrobe Region (outer) TRCs, in the majority of cases each of the four TRCs shown in Table 4.6 are independent in relation to employee residential locations and location of employment. As shown in Table 4.3, mills located within the Latrobe Region (inner and outer) TRCs obtain the majority of their resource from the Central

Gippsland FMA and the majority of their employees reside in the towns of Traralgon, Heyfield, Morwell, Moe, Hazelwood North, Tyers, Glengarry and Warragul. Any change in resource status from this FMA, which may impact on employment clearly has the potential to effect these specific towns.

Similarly, mills located in the Bairnsdale (inner and outer) TRCs draw the majority of their resource from the Tambo FMA (Table 4.3) and the majority of employees are located in the towns of Bairnsdale, Buchan and Bruthen. Again, any changes in the status of resource in the Tambo FMA which may effect employment is likely to impact on these towns.

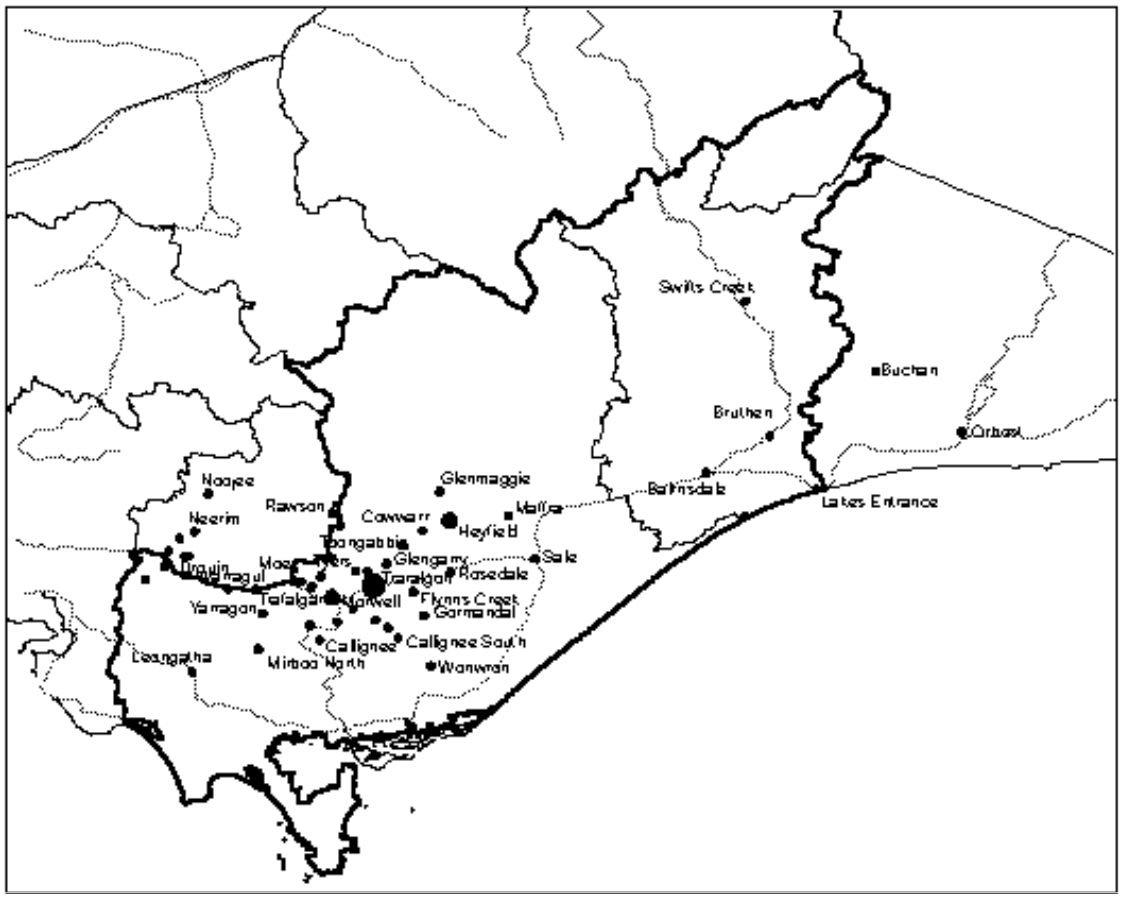

Figure 4.3 **Locations of employee place of residence**
Note: Some town names have been removed.

4.2.4 Household expenditure of employees

While the previous analyses provide some indication of the degree of town dependence on direct employment levels in timber processing industries, employees will not only purchase goods and services from the town in which they reside but also from other regional centres. As such town dependency on industry activity is often broader than simply identifying the number of timber industry employees within a town. In some instances, a town may have no timber industry employees resident, but the town has some reliance upon forest industries through income and further employment generated from the supply of goods and services to timber industry employees located in other towns. There is no intention in the following analyses to

identify local or sub regional income and employment multipliers derived from the household expenditure of timber industry employees. The analyses that are presented simply provide some indication of the magnitude of household expenditure by timber industry employees across towns in the region, and the location of towns in which household goods and services are purchased.

The locational pattern and magnitude of household expenditure by industry employee households is modelled using primary data collected from this survey of timber industry employees and information collected as part of the Australian Bureau of Statistics (ABS) Household Expenditure Survey, which was undertaken in 1993–1994.

The survey of industry employees identified the town location from which commodities or services were purchased, with respondents identifying the main town in which purchases occurred and other towns from which they purchased commodities or services. The identification of main towns and other towns associated with household purchases provided some indication of both primary and secondary catchments for the purchase of household items, as clearly a single household item would not always be purchased from one location. Table 4.7 shows the range of household commodities and services identified in the survey.

Table 4.7 Household commodities and services identified in the forest industry employee survey research

Items	Items
Main household grocery purchases	Petrol or diesel for car
Minor purchases of food and groceries	Power (electricity or gas)
Hairdressing (men's and women's)	Telephone bill payment
Chemist goods, toiletries & cosmetics	Accounting
Take away food	Banking
Tools and hardware	Legal expenses
Clothing	Insurance (inc. house, car or medical)
Books or magazines	Medical (inc. doctors, dentists)
Electrical goods	Mortgage payments
Furniture or carpets	Council rates
Household repairs and maintenance	Rental payments
Cars (new and/or used)	School fees and costs
Car repairs and service	Recreation, sporting and entertainment

Source: EBC (1999).

Mill employee surveys undertaken by ABARE (1998) estimated the mean gross income for mill employees to be $23 700 per annum. After tax employees were assumed to have a mean income of $19 052 per annum. The after tax annual employee income was used to calculate household expenditure for mill employees and the distribution of household expenditure to specific towns. Using the ABS Household expenditure survey and the location from which goods and services were purchased, estimates were obtained for the value of expenditure on goods and services within specific towns.

Table 4.8 shows the amount of household expenditure generated by employees from mills that draw a percentage of their timber resource from FMAs within the Gippsland RFA region. For instance, mills located within the Latrobe Region (inner) TRC were estimated to generate $21.1 million in annual household expenditure. Similarly, mills located within the Bairnsdale (inner) TRC were found to generate $1.9 million in annual household expenditure amongst their employees. Overall, employees from

mills drawing a percentage of their resource from the Gippsland RFA region generated $26.1 million in annual household expenditure.

Table 4.8 TRC source of household expenditure amongst mill employees

Source of household expenditure (TRC)	Annual household expenditure ($'000)
Latrobe Region (inner)	21 119
Bairnsdale (inner)	1 905
Latrobe Region (outer)	2 296
Bairnsdale (outer)	743
Total Household Expenditure	26 063

Note: Excludes those mills drawing resource from the Gippsland RFA region, which are located at Benalla, Corryong, Dandenong South, North Geelong and Hampton Park, and which are all outside the TRCs.
Source: EBC (1999).

Table 4.9 shows the town location of timber processing industries and the magnitude of household expenditure generated by industries within these towns. For instance, of the $21.1 million generated by industries within the Latrobe Region (inner) TRC, the APP Maryvale mill alone generates $18 million in annual household expenditure and the mill at Heyfield generates $2.8 million in annual household expenditure.

Table 4.9 Industry town as source of household expenditure amongst mill employees

Source of household expenditure (industry town)	Annual household expenditure ($'000)
Latrobe Region (inner)	
Maryvale	17 892
Heyfield	2 856
Longwarry	219
Leongatha	152
Total household expenditure	21 119
Bairnsdale (inner)	
Bairnsdale	781
Swifts Creek	410
Mt Taylor	400
Ensay North	314
Total household expenditure	1 905
Latrobe Region (outer)	
Drouin West	1 346
Erica	257
Noojee	248
Neerim South	237
Rokeby	219
Total household expenditure	2 296
Bairnsdale (outer)	
Buchan	648
Buchan South	57
Marlo	38
Total household expenditure	743
Total household expenditure	26 063

Note: Excludes those mills drawing resource from the Gippsland RFA, which are located at Benalla, Corryong, Dandenong South and Hampton Park, and North Geelong and which are all outside the four TRCs.
Source: EBC (1999).

Tables 4.8 and 4.9 identified the source of the household expenditure amongst mill employees. Table 4.10 shows the source of the expenditure, defined on the basis of the four TRCs, and the town location of the expenditure by employees from industries within each of the TRCs. For instance, of the $21.1 million dollars generated by industries located within the Latrobe Region (inner) TRC, $10.6 million of annual household expenditure (approximately 50%) is spent within the town of Traralgon.

Table 4.10 Source of household expenditure (TRCs) by location of expenditure (towns) amongst mill employees

Source of household expenditure TRCs by location (town)	Annual household expenditure ($'000)
Latrobe Region (inner)	
Traralgon	10 601
Morwell	4 186
Heyfield	1 739
Sale	913
Moe	856
Melbourne	419
Churchill	350
Warragul	281
Leongatha	192
Maffra	188
Glengarry	136
Mirboo North	108
Newborough	99
Rosedale	92
Drouin	86
Tyers	73
Trafalgar	68
Bairnsdale	68
Yarram	59
Rawson	55
Traralgon South	52
Lakes Entrance	40
Gormandale	36
Toongabbie	35
Nar-nar-goon	34
Neerim South	29
Dandenong	25
Orbost	24
Yinnar	21
Other towns (less than $20 000)	254
Total household expenditure	21 119
Bairnsdale (inner)	
Bairnsdale	1 478
Bruthen	123
Swifts Creek	111
Melbourne	59
Omeo	34
Lakes Entrance	32
Sale	24
Other towns (less than $20 000)	44
Total household expenditure	1 905
Latrobe Region (outer)	
Warragul	1 884
Erica	95
Narre Warren	75
Neerim South	60
Traralgon	56
Rokeby	45
Noojee	38
Other towns (less than $20 000)	43
Total household expenditure	2 296
Bairnsdale (outer)	
Bairnsdale	224
Buchan	144
Lakes Entrance	132
Heyfield	95
Marlo	44
Sale	38
Orbost	38
Other towns (less than $20 000)	28
Total household expenditure	743
Total household expenditure	26 063

Note: The town location of expenditure based on industries within each of the TRCs.
Source: EBC (1999).

Table 4.11 shows the town location for all household expenditure by mill employees, irrespective of the location of industries that generated the household expenditure. Five towns represent the major locations for mill employee household expenditure, which include Traralgon ($10.6 million), Morwell ($4.2 million), Warragul ($1.9 million), Heyfield ($1.7 million) and Bairnsdale ($1.5 million).

Table 4.11 Location of household expenditure amongst mill employees (all towns)

Source of household expenditure (industry town)	Annual household expenditure ($'000)
Traralgon	10 601
Morwell	4 186
Warragul	1 884
Heyfield	1 739
Bairnsdale	1 478
Sale	913
Moe	856
Melbourne	419
Churchill	350
Warragul	281
Bairnsdale	224
Leongatha	192
Maffra	188
Buchan	144
Glengarry	136
Lakes Entrance	132
Bruthen	123
Swifts Creek	111
Mirboo North	108
Newborough	99
Erica	95
Heyfield	95
Rosedale	92
Drouin	86
Narre Warren	75
Tyers	73
Trafalgar	68
Bairnsdale	68
Neerim South	60
Yarram	59
Melbourne	59
Traralgon	56
Rawson	55
Traralgon South	52
Rokeby	45
Marlo	44
Lakes Entrance	40
Noojee	38
Sale	38
Orbost	38
Gormandale	36
Toongabbie	35
Nar-nar-goon	34
Omeo	34
Lakes Entrance	32
Neerim South	29
Dandenong	25
Orbost	24
Sale	24
Yinnar	21
Other towns (less than $20 000)	369
Total household expenditure	26 063

Note: The town location of household expenditure is based on those industries within each of the TRCs.
Source: EBC (1999).

4.2.5 Industry expenditure

In the survey of forest industries, each industry was asked to indicate the town from which they purchased goods and services within the last 12 months.

Table 4.12 shows for all timber processing industries located within each of the four TRCs, the location of their expenditure on business goods and services. Industries located in Latrobe Region (inner) TRC source much of their goods and services from the towns of Traralgon and Leongatha, while industries in the Bairnsdale (inner) TRC source their goods and services primarily from Bairnsdale and Bruthen. In addition, Table 4.12 shows that industries located within the Latrobe Region (outer) TRC source their goods and services from the towns of Warragul and to a lesser extent Melbourne and Traralgon.

Table 4.12 Location of timber processing industry expenditure

Goods and services	Primary catchment	Secondary catchment	Tertiary catchment
Latrobe Region (inner)			
Frequent business expenses A	Traralgon	Leongatha	Warragul
Other business expenses B	Melbourne	Leongatha	Traralgon
Repairs and maintenance	Heyfield	Leongatha	Traralgon**
Major equipment purchases	Melbourne	Traralgon	Morwell
Building or land purchases/extensions	Leongatha	Heyfield	Traralgon**
Log costs (royalties and levies)	Traralgon	Melbourne	Heyfield
Bairnsdale (inner)			
Frequent business expenses A	Bairnsdale	Bruthen	
Other business expenses B	Bairnsdale	Melbourne	Morwell
Repairs and maintenance	Bairnsdale	Bruthen	
Major equipment purchases	Bairnsdale	Bruthen	
Building or land purchases/extensions	Bairnsdale	Bruthen	
Log costs (royalties and levies)	Bairnsdale		
Latrobe Region (outer)			
Frequent business expenses A	Warragul	Moe	Drouin
Other business expenses B	Melbourne	Warragul	Drouin
Repairs and maintenance	Warragul	Moe	Drouin**
Major equipment purchases	Warragul	Melbourne	Traralgon**
Building or land purchases/extensions	Warragul	Trafalgar	Drouin*
Log costs (royalties and levies)	Traralgon	Noojee	Warragul

*Indicates equal importance to the primary and secondary catchment locations.
**Indicates equal importance to the secondary and tertiary catchment locations.
Note: Frequent business expenses A includes frequent business expenses such as power, fuel, freight, banking and office supplies. Other business expenses B includes less frequent expenses such as accounting, legal expenses, insurance, advertising and printing.
No information is available on industries in the Bairnsdale (outer) TRC.
Source: EBC (1999).

4.2.6 Employee profiles

Table 4.13 shows the profile of timber processing industry employees. Eighty-four per cent of timber processing industry employees are male and the mean age of employees is 40 years. On average employees have been working in the current business for nine years and have worked in this industry sector for 11 years. The majority of employees are long-term residents of the town they live in and have lived in their current town for an average of 19 years. Fifty-one per cent of employees have a year 10 or lower level of education. Two thirds of all employees are married with 22% of employed partners working in the same industry.

Table 4.13 Timber processing industries: employee profiles

Profile	Value
Mean age of employee (years)	40.1
Per cent males	84.3
Per cent females	15.7
Employment	
Per cent full-time employment	96.1
Per cent part-time employment	3.9
Average number of hours worked per week	20.9
Mean number of years working for current business	9.1
Mean number of years working in current industry sector	11.3
Per cent who have only worked in current industry sector	51.1
Per cent who have moved town to retain employment in industry	17.2
Median number of town moves to retain employment in industry	2.0
Home ownership characteristics	
Mean number of years resident in current town	19.4
Home ownership (per cent)	
Rent home	31.1
Have a mortgage	34.4
Own the home	34.4
Highest level of education (per cent)	
Primary school	6.5
Year 7	2.2
Year 8	4.3
Year 9	4.3
Year 10	33.3
Year 11	20.4
Year 12	10.8
A trade or TAFE certificate	15.1
Degree or diploma	3.2
Marital status (per cent)	
Married or defacto	62.4
Widowed	2.2
Single	24.7
Separated or divorced	10.8
Partners employment characteristics (per cent)	
Full-time	25.0
Part-time	27.1
Not employed	47.9
Per cent with partner employed in same industry as employee	22.4
Family characteristics	
Mean family size	3.0
Family lifecycle age profiles (per cent)	
0–4 years (pre-school)	7.3
5–12 years (primary school)	14.9
13–17 years (high school)	10.1
18–24 years (young singles/couples)	10.6
25–39 years (young/middle families)	24.7
40–49 years (mature families)	19.1
50–64 years (pre-retirement)	12.5
65+ years (elderly)	0.9

Note: Sample based on survey responses from 433 employees of timber processing industries. Sample has been aggregated from surveys undertaken as part of the Central Highlands, North East and Gippsland social assessment processes.
Source: EBC (1999).

4.2 Forest contractors

Forest contractors include businesses involved in native sawlog harvesting, transportation and forest roading.

4.3.1 Location of contracting businesses

Table 4.14 and Figure 4.4 provides an indication of the location of forest contractor businesses. Based on surveys of contracting businesses in the Central Highlands, North East and Gippsland, the average employment size for contracting businesses was 4.9 employees per business and is used in Table 4.14 to provide an estimate of the number of employees in contracting businesses within specific towns. Table 4.14 shows there were an estimated 79 contracting businesses who accessed forest

resources within the Gippsland RFA region, with the majority (51%) located within the Latrobe Region (inner) TRC and in particular the town of Traralgon (19%). Using the employment estimate, there were 387 employees of contracting businesses, with the Latrobe Region (inner) TRC having 196 employees and the town of Traralgon 74 employees.

Table 4.14 Town location of forest contractor businesses

Town location	Number of businesses	Number of employees
Latrobe Region (inner)		
Traralgon	15	73.5
Heyfield	7	34.3
Tyers	6	29.4
Morwell	3	14.7
Glengarry	2	9.8
Drouin	1	4.9
Flynns Creek Upper	1	4.9
Gormandale	1	4.9
Longwarry	1	4.9
Rosedale	1	4.9
Toongabbie	1	4.9
Yinnar	1	4.9
Total	40	196.0
Latrobe Region (outer)		
Warragul	7	34.3
Rawson	2	9.8
Darnum	1	4.9
Erica	1	4.9
Nayook	1	4.9
Neerim South	1	4.9
Trafalgar	1	4.9
Total	14	68.6
Bairnsdale (inner)		
Bairnsdale	1	4.9
Bruthen	1	4.9
Total	2	9.8
Sale		
Maffra	2	9.8
Sale	1	4.9
Total	3	14.7
South Coast		
Yarram	1	4.9
Total	1	4.9
Other locations	20	98.0
Total	79	387

Note: Based on information supplied by the carters and loggers associations of Gippsland.
Prepared by: EBC (1999).

Figure 4.4 **Location of forest contracting businesses**

4.3.2 Residential location of employees

As survey information was available for only 34 contracting business employees (Table 4.2), which represented 9% of the estimated 387 employees, it was not possible to identify the residential town location of all contracting business employees. However, as shown in Table 4.6, the majority of industry employees reside in the same TRC in which they are employed. As such the total employment for TRCs reported in Table 4.14 would also reflect the total number of employees who are resident within a TRC. For instance, it is estimated that there are 196 employees working for contracting businesses located within the Latrobe (inner) TRC, and that these 196 employees are also likely to reside within this TRC.

4.3.3 Household expenditure of employees

Estimates for employee household expenditure were derived using the same procedure as outlined for mill employees (Section 4.2.4).

Table 4.15 shows the amount of household expenditure generated amongst forest contractor employees. For instance, contractors located within the Latrobe Region (inner) TRC were estimated to generate $3.7 million in annual household expenditure. Similarly, contractors located within the Latrobe Region (outer) TRC were found to

generate $1.3 million in annual household expenditure amongst their employees. Overall, employees of contractors drawing a percentage of their resource from the Gippsland RFA region, generated $7.4 million in annual household expenditure.

Table 4.15 TRC source of household expenditure amongst contracting business employees

Source of household expenditure (TRC)	Annual household expenditure ($'000)
Latrobe Region (inner)	3 734
Latrobe Region (outer)	1 307
Bairnsdale (inner)	187
Sale	280
South Coast	93
Other locations	1 867
Total household expenditure	7 375

Source: EBC (1999).

Table 4.16 shows the town location of contracting businesses and the magnitude of household expenditure generated by contracting businesses within these towns. For example, of the $3.7 million generated by industries within the Latrobe Region (inner) TRC, contracting businesses located in Traralgon alone generate $1.4 million in annual household expenditure. In addition, as shown in Table 4.16, contracting businesses located outside the Gippsland RFA region and outside all TRCs generate $1.9 million in annual household expenditure.

Table 4.16 Industry town as source of household expenditure amongst contracting business employees

Source of household expenditure (industry town)	Annual household expenditure ($'000)
Latrobe Region (inner)	
Traralgon	1 400
Heyfield	653
Tyers	560
Morwell	280
Glengarry	187
Drouin	93
Flynns Creek Upper	93
Gormandale	93
Longwarry	93
Rosedale	93
Toongabbie	93
Yinnar	93
Total	3 734
Latrobe Region (outer)	
Warragul	653
Rawson	187
Erica	93
Darnum	93
Nayook	93
Neerim South	93
Trafalgar	93
Total	1 307
Bairnsdale (inner)	
Bairnsdale	93
Bruthen	93
Total	187
Sale	
Maffra	187
Sale	93
Total	280
South Coast	
Yarram	93
Total	93
Other locations	1 867
Total household expenditure	7 375

Source: EBC (1999)

Due to the low number of surveys returned from employees of contracting businesses it is not possible to identify the town location for household expenditure. However, as shown in Table 4.10 a high percentage of the household expenditure of employees occurs within the TRC in which they are employed or in close proximity to the town in which they are employed. As such Table 4.16, without any additional information on the location of household expenditure, also provides the best estimate for the location of employee household expenditure.

4.3.4 Industry expenditure

In the survey of forest industries, each contracting business was asked to indicate the town from which they purchased goods and services within the last 12 months.

Table 4.17 shows for all contracting businesses located within each of the TRCs, the location of their expenditure on business goods and services. Businesses located in Latrobe Region (inner and outer) TRCs source much of their goods and services from the towns of Traralgon and Warragul, while businesses in the Sale TRC source their goods and services from Sale, Traralgon and Maffra. Although no information was available from businesses located in the Bairnsdale (inner and outer) TRCs, it is clear from the information presented in Table 4.17 that Traralgon is a major supplier of goods and services to contracting businesses within the region.

Table 4.17 Location of contracting business expenditure

Goods and services	Primary catchment	Secondary catchment	Tertiary catchment
Latrobe Region (inner)			
Frequent business expenses A	Traralgon	Heyfield	Warragul
Other business expenses B	Traralgon	Warragul	Morwell**
Repairs and maintenance	Traralgon	Warragul	Heyfield
Major equipment purchases	Traralgon	Warragul	Bairnsdale
Building or land purchases/extensions	Traralgon	Warragul	Heyfield**
Log costs (royalties and levies)	Traralgon	Heyfield	Warragul**
Sale			
Frequent business expenses A	Sale	Traralgon	Maffra**
Other business expenses B	Sale	Maffra	Traralgon**
Repairs and maintenance	Sale	Maffra	Traralgon**
Major equipment purchases	Sale	Traralgon	
Building or land purchases/extensions	Maffra		
Log costs (royalties and levies)	Traralgon	Dargo	
Latrobe Region (outer)			
Frequent business expenses A	Warragul	Traralgon	Trafalgar**
Other business expenses B	Warragul	Moe	Traralgon
Repairs and maintenance	Trafalgar	Traralgon	Warragul**
Major equipment purchases	Traralgon	Bairnsdale	Warragul**
Building or land purchases/extensions	Warragul	Moe*	
Log costs (royalties and levies)	Traralgon	Noojee	Warragul

*Indicates equal importance to the primary and secondary catchment locations.
**Indicates equal importance to the secondary and tertiary catchment locations.
Note: Frequent business expenses A includes frequent business expenses such as power, fuel, freight, banking and office supplies. Other business expenses B includes less frequent expenses such as accounting, legal expenses, insurance, advertising and printing. No information is available on industries in the Bairnsdale (inner), Bairnsdale (outer) and South Coast TRCs.
Source: EBC (1999).

4.3.5 Employee profiles

Table 4.18 shows the profile of contractor business employees. Eighty-nine per cent of employees are male and the mean age of employees is 42 years. On average employees have been working in the current business for 10 years and have worked in this industry sector for 17 years. The majority of employees are long-term residents of

the town they live in and have lived in their current town for an average of 27 years. Fifty-five per cent of employees have a year 10 or lower level of education. Eighty-two per cent of all employees are married with 26% of all employed partners working in the same industry.

Table 4.18 Forest contractors: employee profiles

Profile	Value
Mean age of employee (years)	41.9
Per cent males	89.3
Per cent females	10.7
Employment	
Per cent full-time employment	94.1
Per cent part-time employment	ND
Average number of hours worked per week	20.9
Mean number of years working for current business	9.8
Mean number of years working in current industry sector	16.8
Per cent who have only worked in current industry sector	55.9
Per cent who have moved town to retain employment in industry	26.5
Median number of town moves to retain employment in industry	2.0
Home ownership characteristics	
Mean number of years resident in current town	26.5
Home ownership (per cent)	
Rent home	20.6
Have a mortgage	35.3
Own the home	44.1
Highest level of education (per cent)	
Primary school	6.1
Year 7	3.0
Year 8	9.1
Year 9	6.1
Year 10	30.3
Year 11	15.2
Year 12	6.1
A trade or TAFE certificate	21.2
Degree or diploma	3.0
Marital status (per cent)	
Married or defacto	81.8
Widowed	0.0
Single	9.1
Separated or divorced	9.1
Partners employment characteristics (per cent)	
Full-time	21.4
Part-time	39.3
Not employed	39.3
Per cent with partner employed in same industry as employee	26.1
Family characteristics	
Mean family size	3.0
Family lifecycle age profiles (per cent)	
0–4 years (pre-school)	2.9
5–12 years (primary school)	22.3
13–17 years (high school)	8.7
18–24 years (young singles/couples)	15.5
25–39 years (young/middle families)	24.3
40–49 years (mature families)	19.4
50–64 years (pre-retirement)	4.9
65+ years (elderly)	1.9

Note: Based on a sample of 34 survey responses.
'ND' indicates insufficient or no data was available.
Source: EBC (1999).

4.4 Grazing businesses

The return rate for questionnaires distributed to grazing businesses who were holders of grazing licences for the Gippsland RFA region was low as was the return rate for employees of these businesses (Table 4.1). The only form of analysis that can be undertaken is to examine the town location of grazing businesses.

4.4.1 Location of grazing businesses

Figure 4.5 and Table 4.19 show the town location of holders of grazing licences and the TRC in which the town is located. In addition, Table 4.19 also shows that several businesses hold more than one grazing licence. Of the 44 grazing businesses identified, 26 (59%) were located in the Bairnsdale (inner) TRC and 9 (20%) in the Sale TRC.

Table 4.19 Town location of grazing businesses

Town location	Number of businesses	Number of licences
Bairnsdale (inner)		
Omeo	11	20
Benambra	5	7
Bairnsdale	4	5
Ensay	3	5
Cassilis	1	1
Lakes Entrance	1	1
Swifts Creek	1	3
Total grazing businesses and licences	26	42
Sale		
Maffra	3	3
Glenmaggie	3	4
Stratford	2	2
Sale	1	1
Total grazing businesses and licences	9	10
South Coast		
Alberton West	1	1
Carrajung South	1	1
Woodside	1	1
Yarram	1	1
Total grazing businesses and licences	4	4
Latrobe Region (inner)		
Heyfield	2	2
Total grazing businesses and licences	2	2
Bairnsdale (outer)		
Buchan	1	2
Total grazing businesses and licences	1	2
Other town locations	2	3
Total grazing businesses and licences	44	63

Notes:
Based on information supplied by Department of Natural Resources and Environment (DNRE) and includes permit holders for the Gippsland RFA region.
Town location will often include nearest town to the grazing business.
No grazing permit holders were identified in the Latrobe Region (outer) TRC.
Prepared by: EBC (1999).

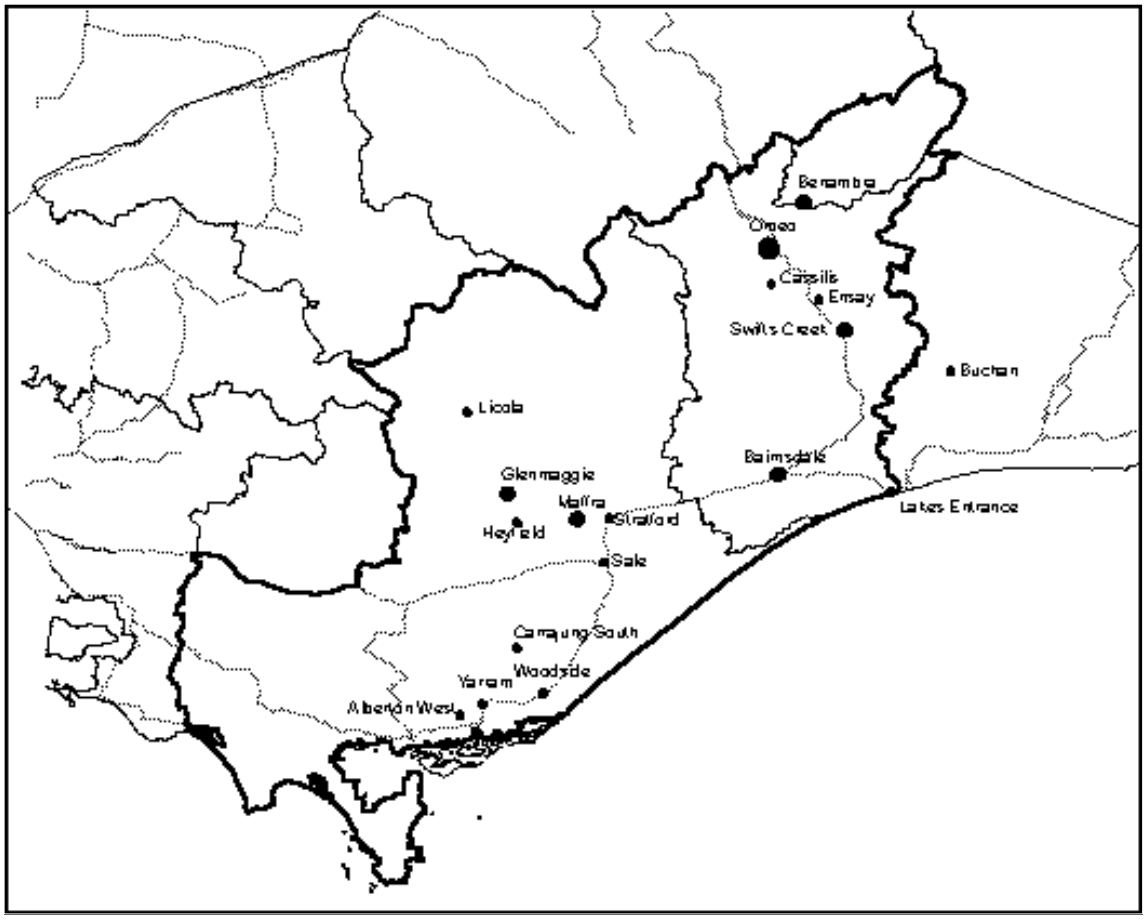

Figure 4.5 Location of grazing businesses

4.5 Apiarists

The return rate for questionnaires distributed to apiarist businesses who held permits for the Gippsland RFA region was low as was the return rate for employees of these businesses (Table 4.1). The only form of analysis that can be undertaken is to examine the town location of apiarist businesses.

4.5.1 Location of apiarist businesses

Figure 4.6 and Table 4.20 shows the town location of apiarist businesses and the TRC in which the town is located. Of the 78 apiarist businesses identified, 53 (68%) were located in the Bairnsdale (inner) TRC. As shown in Table 4.20 many towns had apiarists businesses that held more than one permit, which may provide some indication of the size of the businesses in the town. On the basis of the number of permits held, the towns of Bruthen and Bairnsdale had the largest apiarist businesses.

Table 4.20 Town location of apiarist businesses

Town location	Number of businesses	Number of permits
Bairnsdale (inner)		
Bairnsdale	11	59
Lakes Entrance	7	14
Omeo	7	11
Sarsfield	5	5
Benambra	4	4
Bruthen	4	74
Ensay	3	4
Loch Sport	2	9
Wy Yung	2	4
Cassilis	1	1
Clifton Creek	1	1
Forge Creek	1	1
Kalimna	1	1
Nicholson	1	4
Nungurner	1	2
Raymond Island	1	6
Swifts Creek	1	1
Total apiarist businesses and permits	53	201
Latrobe Region (inner)		
Moe	3	29
Heyfield	2	4
Mirboo North	1	1
Moe South	1	1
Traralgon	1	22
Total apiarist businesses and permits	8	57
Sale		
Briagolong	3	26
Longford	2	21
Maffra	2	12
Munroe	1	1
Total apiarist businesses and permits	8	60
Latrobe Region (outer)		
Darnum	2	9
Total apiarist businesses and permits	2	9
Bairnsdale (outer)		
Buchan	1	1
Total apiarist businesses and permits	1	1
Other town locations	6	28
Total apiarist businesses and permits	78	356

Note: Based on information supplied by Department of Natural Resources and Environment (DNRE) and includes permit holders for the Gippsland RFA region. Town location will often include nearest town to the apiarist business. No apiarists were identified in the South Coast TRC.
Prepared by: EBC (1999).

Figure 4.6 Location of apiarist businesses

4.6 Prospecting and mining

The return rate for prospecting and mining businesses was low (Table 4.1) and the only form of analysis that can be undertaken is to examine the town location of these businesses. Although only based on 12 employees of prospecting and mining businesses, an employee profile has been developed although some caution should be used in interpreting this profile given the low sample size on which it is based.

4.6.1 Location of prospecting and mining businesses

Figure 4.7 and Table 4.21 show the majority of prospecting and mining businesses are located in the Bairnsdale (inner) TRC (74%) and in particular in the towns of Bairnsdale (34%) and Omeo (26%).

Table 4.21 Town location of prospecting and mining businesses

Town location	Number of businesses
Bairnsdale (inner)	
Bairnsdale	17
Omeo	13
Lakes Entrance	3
Benambra	2
Swifts Creek	2
Total number of businesses	37
Sale	
Maffra	4
Sale	5
Stratford	2
Total number of businesses	11
Latrobe Region (inner)	
Yarram	1
Total number of businesses	1
South Coast	
Heyfield	1
Total number of businesses	1
Total	50

Notes:
Based on information supplied by the Prospecting and Mining Association of Victoria and includes members within the Gippsland RFA region.
Town location will often include nearest town to the business.
No prospecting and mining businesses were located in the Bairnsdale (outer) or Latrobe Region (outer) TRCs.
Prepared by: EBC (1999).

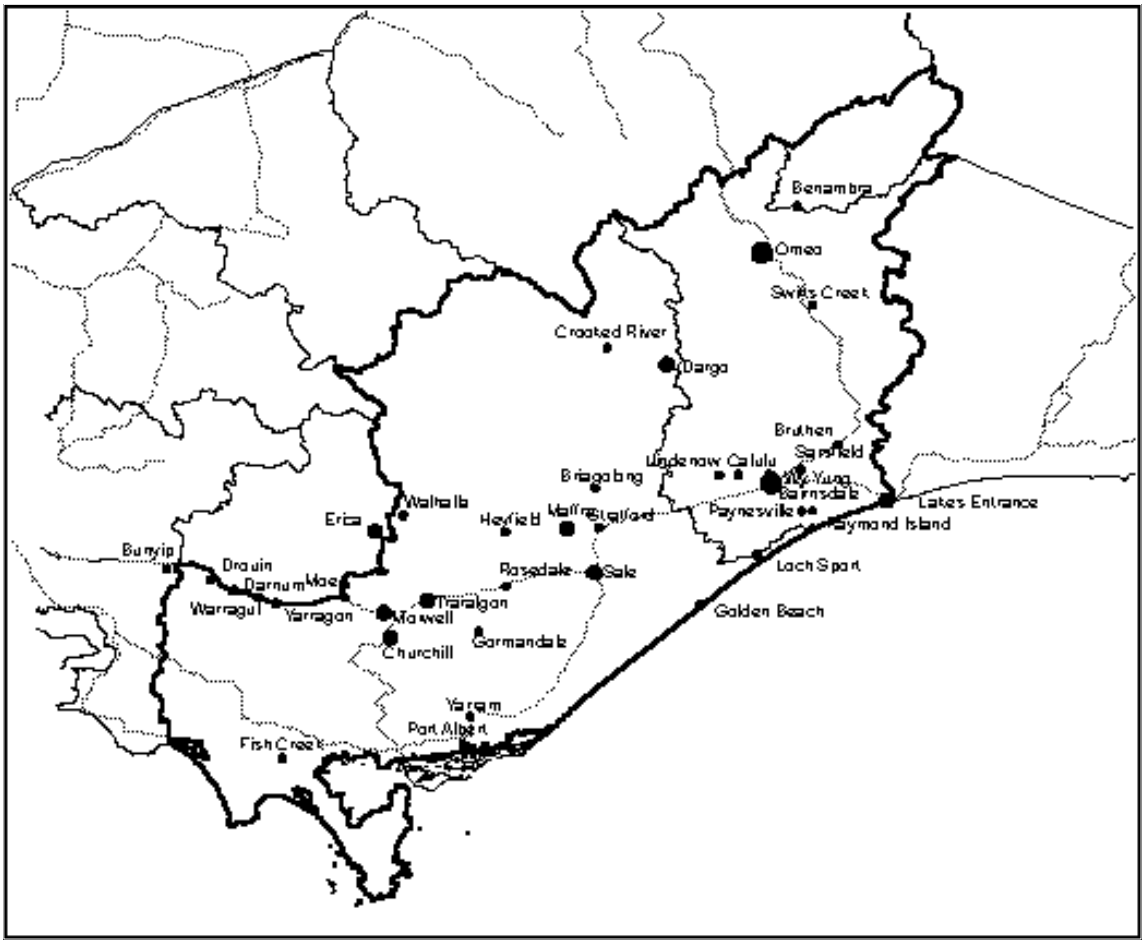

Figure 4.7 Location of mining and prospecting businesses

4.6.2 Employee profiles: prospecting and mining

Table 4.22 shows the profile of prospecting and mining employees. All employees were found to be male, with a mean age of 56 years. On average employees have been working in the current business for 24 years and had worked in this industry sector for 27 years. The majority of employees are long-term residents of the town they live in, having lived in their current town for an average of 32 years. Seventy per cent of employees had a year 10 or lower level of education. Sixty-seven per cent of all employees were married with no employed partners working in the same industry (based on returned industry surveys).

Table 4.22 Prospecting and mining: employee profiles

Profile	Value
Mean age of employee (years)	55.5
Per cent males	100.0
Per cent females	0.0
Employment	
Per cent full-time employment	44.4
Per cent part-time employment	55.6
Average number of hours worked per week	ND
Mean number of years working for current business	23.9
Mean number of years working in current industry sector	27.2
Per cent who have only worked in current industry sector	22.2
Per cent who have moved town to retain employment in industry	ND
Median number of town moves to retain employment in industry	ND
Home ownership characteristics	
Mean number of years resident in current town	32.2
Home ownership (per cent)	
Rent home	9.1
Have a mortgage	9.1
Own the home	81.8
Highest level of education (per cent)	
Primary school	10.0
Year 7	10.0
Year 8	20.0
Year 9	0.0
Year 10	30.0
Year 11	0.0
Year 12	0.0
A trade or TAFE certificate	10.0
Degree or diploma	20.0
Marital status (per cent)	
Married or defacto	66.7
Widowed	16.7
Single	8.3
Separated or divorced	8.3
Partners employment characteristics (per cent)	
Full-time	25.0
Part-time	25.0
Not employed	50.0
Per cent with partner employed in same industry as employee	0.0
Family characteristics	
Mean family size	1.6
Family lifecycle age profiles (per cent)	
0–4 years (pre-school)	10.5
5–12 years (primary school)	21.1
13–17 years (high school)	0.0
18–24 years (young singles/couples)	0.0
25–39 years (young/middle families)	15.8
40–49 years (mature families)	21.1
50–64 years (pre-retirement)	15.8
65+ years (elderly)	15.8

Note: Based on a sample of 12 survey responses. 'ND' indicates insufficient or no data was available.
Source: EBC (1999).

4.7 Tourism

As less than 10% of tourism businesses who held permits for activities in public forests responded to the questionnaire (Table 4.1), the analysis of locational information is based solely on the database of licensed permit holders. An employee profile of tourism businesses was developed based on questionnaires completed by 33 employees of tourism businesses.

4.7.1 Location

Figure 4.8 and Table 4.23 shows the town location of those tourism businesses that were known to operate or intended to operate in public forests within the Gippsland RFA region. What is immediately apparent from Table 4.23 is that 76% of these businesses were located outside of the six TRCs and the Gippsland RFA region, with 44% of all tourism businesses based in Melbourne metropolitan area. Only 15% of tourism businesses were located within the Gippsland RFA region South Coast, Sale, Bairnsdale (inner) and Latrobe Region (inner) TRCs.

Table 4.23 Town location of tourism businesses (permit holders)

Town location	Number of businesses	Percentage of businesses
Other locations		
Cowes	3	3.1
Dinner Plain	2	2.1
Tallangatta	2	2.1
Melbourne metropolitan area	43	44.3
Other town locations (one business in a town)	24	24.7
Total	74	76.3
South Coast		
Foster	2	2.1
Fish Creek	1	1.0
Port Franklin	1	1.0
Tidal River	1	1.0
Waratah Bay	1	1.0
Total	6	6.2
Bairnsdale (inner)		
Anglers Rest	1	1.0
Glen Wills	1	1.0
Lakes Entrance	1	1.0
Total	3	3.0
Latrobe Region (inner)		
Churchill	1	1.0
Morwell	1	1.0
Yarragon	1	1.0
Total	3	3.0
Bairnsdale (outer)		
Orbost	1	1.0
Total	1	1.0
Sale		
Glenaladale	1	1.0
Stratford	1	1.0
Total	2	2.0
Unknown locations	3	3.1
Interstate	5	5.2
Total	97	100.0

Notes:
Based on information supplied by the Department of Natural Resources and Environment (DNRE).
Includes only those commercial tour operators with a permit to use public forests in the Gippsland RFA region.
Town location will often include nearest town to the business.
Prepared by: EBC (1999).

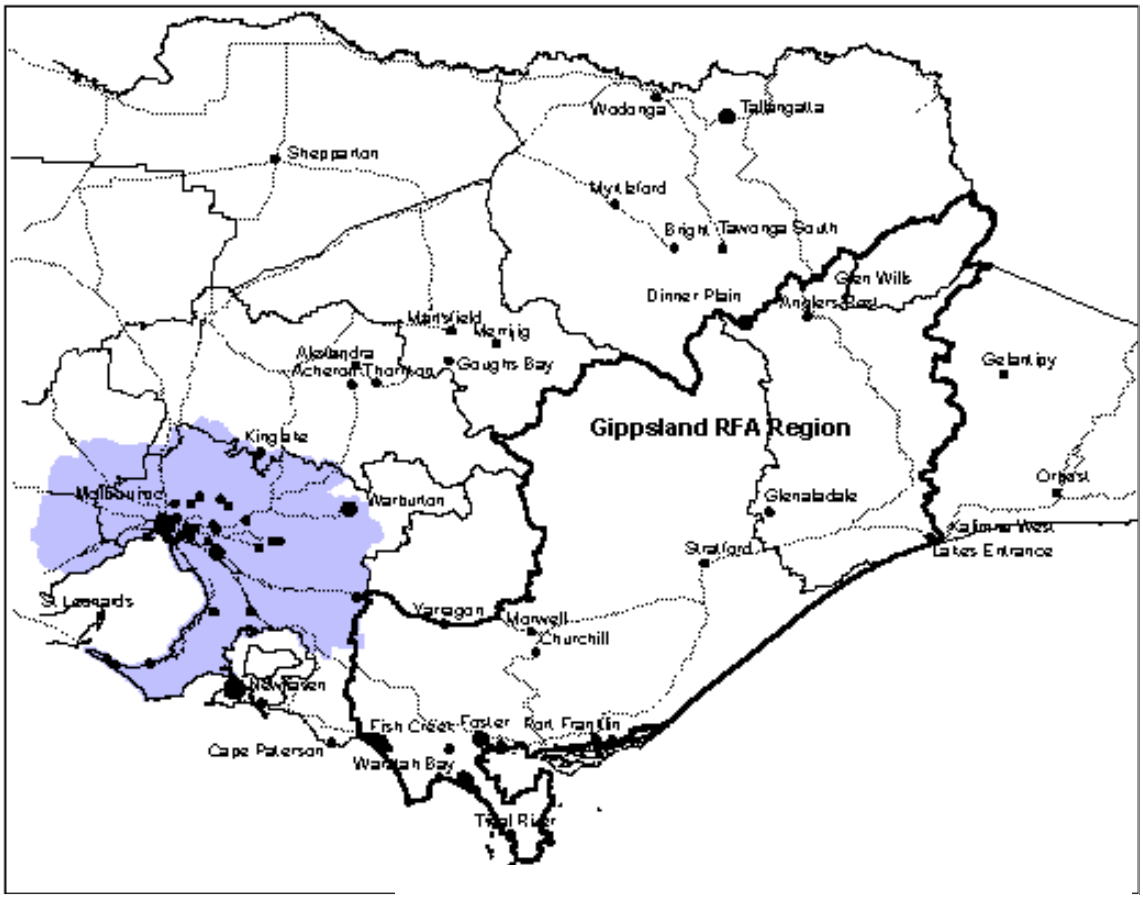

Figure 4.8 **Location of tourism businesses (permit holders)**

4.7.2 Use of public forests

For each of the 97 tourism businesses who had permits to access public native forests within the Gippsland RFA region information was also available on the location of the public forests that were licensed to use. Table 4.24 shows that approximately a third (35%) of all tourism businesses were licensed to use the Alpine National Park, with the Wonnangatta and Bogong management units the most commonly used areas within the Alpine National Park. In addition to the use of the Alpine National Park, Wilson's Promontory National Park (17%) and the Mitchell River National Park (11%) were also frequently used by tourism businesses.

Table 4.24 Location of public forests used by tourism businesses (permit holders)

Town location	Number of businesses	Per cent of businesses
Alpine NP (management unit undefined)[1]	38	17.0
Wonnangatta	17	7.6
Bogong	12	5.4
Cobberas	5	2.2
Tingaringy	5	2.2
Dartmouth	2	0.9
Total Alpine NP	79	35.4
Wilsons Promontory NP	37	16.6
Mitchell River NP	24	10.8
Gippsland Lakes CP	11	4.9
Baw Baw NP	9	4.0
Tarra Bulga NP	8	3.6
The Lakes NP	6	2.7
Walhalla Historic Area	6	2.7
Grant Historic Area	5	2.2
Mount Worth SP	5	2.2
Bunurong CR	4	1.8
Cape Liptrap	3	1.3
Colquhoun SF	3	1.3
Morwell NP	2	0.9
Nooramunga CP	2	0.9
Strzelecki SF	2	0.9
Victoria Falls Historic Area	2	0.9
Avon Wilderness Park	1	0.4
Bald Hills Wetlands Reserve	1	0.4
Boola Boola SF	1	0.4
Carey River SF	1	0.4
Cassillis Historic Area	1	0.4
Holey Plains SP	1	0.4
Kilcunda CR	1	0.4
Macalister SF	1	0.4
Mirboo Regional Park	1	0.4
Mullungdung SF	1	0.4
Powlett River Reserve	1	0.4
Shallow Inlet CP	1	0.4
Thomson SF	1	0.4
Tyers Regional Park	1	0.4
Tyers SF	1	0.4
Total number of locations	223	100.0

[1]In several instances use of areas of public forest was defined solely as the Alpine NP, without reference to a specific management unit within the park.
Note: 'NP' indicates National Park; 'SF' indicates State Forest; 'CR' indicates Coastal Reserve; 'CP' indicates Coastal Park; 'SP' indicates State Park.
Wilsons Promontory National Park, Wilsons Promontory Marine Reserve, Wilsons Promontory Marine Park and Wilsons Promontory Lighthouse Reserve.
Source: DNR (1999).
Prepared by: EBC (1999).

4.7.3 Location of tourism accommodation

Examining the location of tourism accommodation businesses throughout the region provides an indication of the location of tourism businesses and activity throughout the Gippsland RFA region. Table 4.25 and Figure 4.9 shows that towns located within the Bairnsdale (inner) TRC have the highest percentage of tourism accommodation businesses in the region, accounting for 47% of all businesses. The town of Lakes Entrance in particular has 12% of all tourism accommodation businesses.

4.7.4 Towns visited by tourists

The questionnaire distributed to tourism businesses (permit holders) asked each business operator to identify those towns in the Gippsland RFA region they considered tourists were most likely to visit. Although only based on 11 responses, Table 4.26 shows the main towns to be Mt Hotham (91%), Walhalla (73%), Lakes Entrance (64%) and Bairnsdale (55%).

Table 4.25 Town location of tourism accommodation businesses

Town location	Number of businesses	Per cent of businesses
Bairnsdale (inner)		
Lakes Entrance	80	11.5
Bairnsdale	25	3.6
Metung	11	1.6
Omeo	9	1.3
Paynesville	9	1.3
Eagle Point	5	0.7
Loch Sport	5	0.7
Nicholson	4	0.6
Swan Reach	4	0.6
Bruthen	3	0.4
Kalimna West	3	0.4
Lindenow	3	0.4
Other locations (less than 2 per town)	163	23.5
Total tourism accommodation businesses	324	46.6
Latrobe Region (inner)		
Traralgon	25	3.6
Morwell	24	3.5
Moe	13	1.9
Leongatha	9	1.3
Drouin	8	1.2
Korumburra	8	1.2
Heyfield	5	0.7
Mirboo North	5	0.7
Rosedale	5	0.7
Yinnar	4	0.6
Yarragon	3	0.4
Other locations (less than 2 per town)	21	3.0
Total tourism accommodation businesses	130	18.7
South Coast		
Inverloch	12	1.7
Foster	8	1.2
Yarram	8	1.2
Port Albert	6	0.9
Toora	4	0.6
Sandy Point	3	0.4
Woodside	3	0.4
Yanakie	3	0.4
Other locations (less than 2 per town)	47	6.8
Total tourism accommodation businesses	94	13.5
Sale		
Sale	24	3.5
Maffra	10	1.4
Glenmaggie	8	1.2
Dargo	6	0.9
Stratford	6	0.9
Other locations (less than 2 per town)	7	1.0
Total tourism accommodation businesses	61	8.8
Bairnsdale (outer)		
Orbost	10	1.4
Buchan	7	1.0
Marlo	5	0.7
Other locations (less than 2 per town)	22	3.2
Total tourism accommodation businesses	44	6.3
Latrobe Region (outer)		
Warragul	19	2.7
Erica	3	0.4
Jindivick	4	0.6
Neerim South	4	0.6
Noojee	4	0.6
Other locations (less than 2 per town)	8	1.2
Total tourism accommodation businesses	42	6.0
Total number of tourism accommodation businesses	695	100.0

Source: Yellow Pages (November, 1997) Accommodation listing.
Prepared by: EBC (1999).

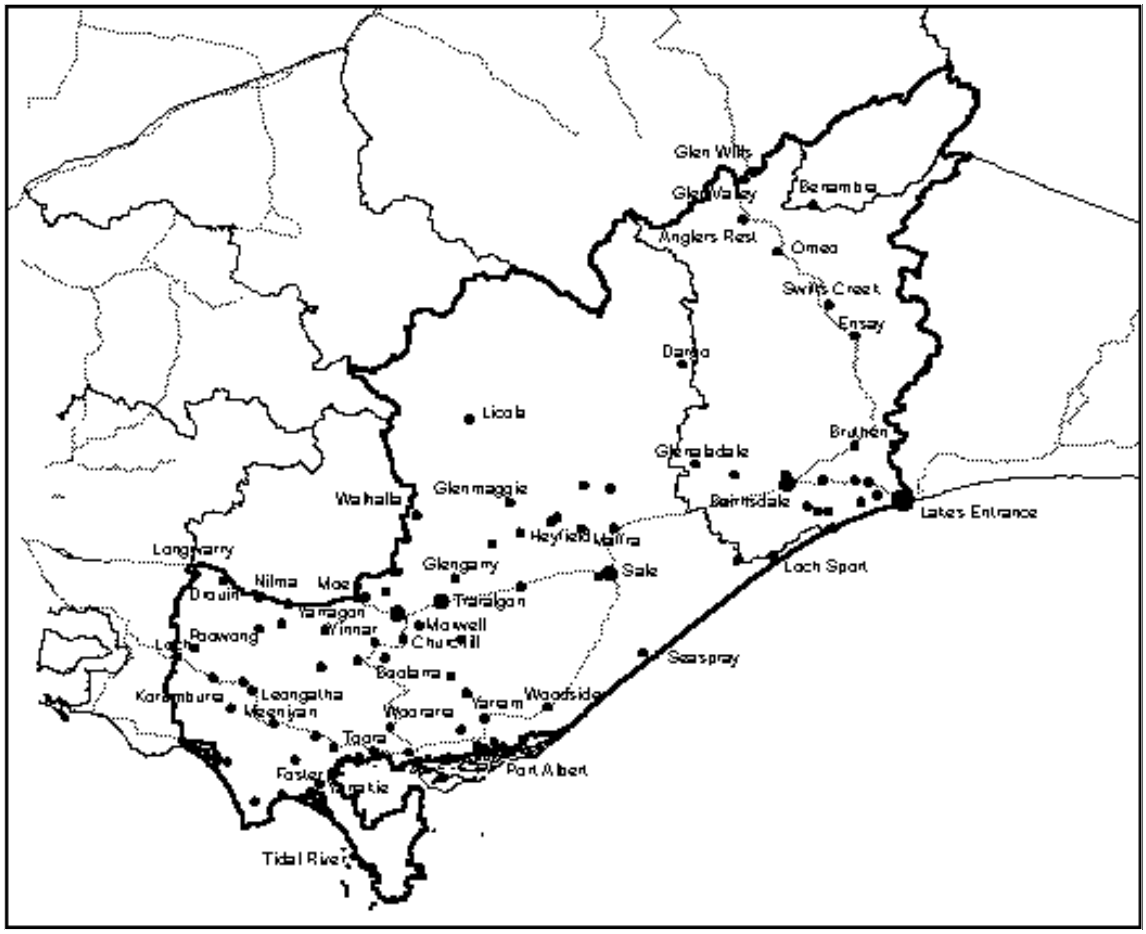

Figure 4.9 **Location of towns with tourism accommodation**
Note: Several town names have been deleted for ease of interpretation.

Table 4.26 **Perception of main tourism towns amongst tourism business operators**

Town	Count	Per cent
Mt Hotham	10	90.9
Walhalla	8	72.7
Lakes Entrance	7	63.6
Bairnsdale	6	54.5
Dargo	4	36.4
Licola	3	27.3
Foster	2	18.2
Omeo	2	18.2
Sale	2	18.2
Benambra	1	9.1
Heyfield	1	9.1
Korumburra	1	9.1
Mirboo North	1	9.1
Port Albert	1	9.1
Seaspray	1	9.1
Stratford	1	9.1
Traralgon	1	9.1

Note: This is a multiple response table, where all rows are independent.
Source: EBC (1999).

4.7.5 Employee profiles: tourism

Table 4.27 shows the profile of tourism business (permit holder) employees. Fifty-two per cent of employees were male and the mean age of employees was 36 years. On average employees had been working in their current business for 6 years and had worked in this industry sector for 9 years. The majority of employees were not long-term residents of the town in which they lived, having lived in their current town for an average of only 9 years. Seventy-nine per cent of employees had a year 12 or higher level of education. Fifty-eight per cent of all employees were married with 41% of all employed partners working in the same industry.

Table 4.27 Tourism: employee profiles

Profile	Value
Mean age of employee (years)	35.5
Per cent males	51.7
Per cent females	48.3
Employment	
Per cent full-time employment	90.6
Per cent part-time employment	9.4
Average number of hours worked per week	15.0
Mean number of years working for current business	5.6
Mean number of years working in current industry sector	8.9
Per cent who have only worked in current industry sector	36.4
Per cent who have moved town to retain employment in industry	57.6
Median number of town moves to retain employment in industry	3.0
Home ownership characteristics	
Mean number of years resident in current town	8.7
Home ownership (per cent)	
Rent home	51.5
Have a mortgage	24.2
Own the home	24.2
Highest level of education (per cent)	
Primary school	0.0
Year 7	0.0
Year 8	6.1
Year 9	0.0
Year 10	6.1
Year 11	9.1
Year 12	15.2
A trade or TAFE certificate	12.1
Degree or diploma	51.5
Marital status (per cent)	
Married or defacto	57.6
Widowed	0.0
Single	39.4
Separated or divorced	3.0
Partners employment characteristics (per cent)	
Full-time	52.6
Part-time	42.1
Not employed	5.3
Per cent with partner employed in same industry as employee	41.2
Family characteristics	
Mean family size	1.8
Family lifecycle age profiles (per cent)	
0–4 years (pre-school)	0.0
5–12 years (primary school)	10.3
13–17 years (high school)	5.2
18–24 years (young singles/couples)	1.7
25–39 years (young/middle families)	51.7
40–49 years (mature families)	27.6
50–64 years (pre-retirement)	3.4
65+ years (elderly)	0.0

Note: Based on a sample of 33 survey responses.
Source: EBC (1999).

5 Stakeholder views

This section identifies the main groups and associations with an interest in the use and management of native forests within the Gippsland region of Victoria.

This analysis is useful in predicting how groups may respond to different policy alternatives, and to determine the costs and benefits of particular policy options on these groups.

5.1 Scoping of issues and interests

As part of the social assessment process, the Forest Community Co-ordinator for Victoria has had ongoing discussions and consultations with the range of key stakeholder groups and individuals at a state, regional and local level who have had an interest in the forests within the Gippsland region.

These discussions have led to the identification of key issues for each respective group. As may be expected, representatives from various groups articulate a diverse range of views. The issues reflect both the desire for future opportunities as well as concerns being experienced.

Stakeholder interests have been categorised into eight main interest group ares, with the issues raised by each group displayed below. The Stakeholders have been identified as:

- timber industry
- tourism, recreation and outdoor education
- conservation
- other forest uses (apiculture, seed collection, firewood and grazing)
- mineral production
- landholders
- local government
- Aboriginal groups/communities.

This particular section of the report has been structured to identify the views of each group as expressed by those involved in discussions.

5.2 Timber industry

5.2.1 Decision-making issues

- Desire for all year logging.
- Need long-term planning/licences to secure harvesting operations.
- Require RFAs to secure future in volume, species, grade and location.

- Want reduction of royalties for pulpwood in areas that are not close to markets to secure woodchips from more remote areas.
- Need consistent forest policy regardless which political party in power.
- Desire to minimise conflict with conservation groups.

5.2.2 Forest management issues

- Want to work to the Code of Forest Practice for 12 months—work when dry, stop when wet, not by calendar dates.
- Desire for recognition that forest operators are conservationists also.
- Spend the time and money on silviculture, not further debate.
- Better public education required on regeneration potential.
- Seek full utilisation of residual wood.

5.2.3 Other issues

- Areas that have been reserved should be reviewed.
- Too many reports.
- Often longer distances to travel to coupes, therefore greater costs.
- Closure of native forests from July–October leaves very little income in that period.
- Media bias on issues.
- Believe fire risk will increase with more areas closed off.
- Need better road access and maintenance.
- Uncertainty for industry workforce financial stability.

5.2.4 Opportunities

- Development of additional paper manufacturing facilities in Victoria, instead of exporting woodchips.
- Potential for expansion of export licences for woodchips.
- Timber products are renewable, biodegradable, and recyclable.
- Industry could set up more joint ventures.
- Increased opportunity for job creation.

5.3 Tourism, recreation and outdoor education

5.3.1 Decision-making issues

- Greater consideration required in harvesting techniques for tourism needs.
- Concern at reduction in the area suitable for multiple use activities within forest areas.
- Need for buffer zones between tourist areas and harvested coupes.
- Need for more educational tours between industry, forest staff and tourism operators.
- Question adequacy of clean up after logging in some areas.
- Requirement for increased ecotourism/forest information signs.

5.3.2 Forest management issues

- Decrease in sightings of native animals.
- Increase in sightings of feral animals.
- Need for greater maintenance of forest tracks and noxious weeds.
- Support for more outdoor education staff.
- Development of more outdoor education facilities.
- Support selective harvesting.
- Preference for mixed species plantings following harvesting.

5.3.3 Other issues

- Need for increased tourism facilities in Parks—e.g. toilets, signs, information posters/brochures.
- Concern at increasing permit and daily usage costs.
- Concern at reduction of Parks staff.
- Closure of tracks affecting business.
- Need to be informed of any restrictions on access to public forests.
- Problems associated with locked gates and permit regulations.
- Native forests are a vital element of eco-tourism industry.
- Need to be informed of forestry and timber industry activities (e.g. burn offs, logging).
- Changes and restrictions have affected some forest activities, in various locations e.g. fishing, climbing.
- Need for enforced speed limits for timber industry vehicles on local roads.

5.3.4 Opportunities

- Increased ecotourism providing regional employment opportunities.
- Further develop nature based tourism/recreation potential.
- Support linkages between tourism operators and other forest industry ventures.
- Improve education on forestry practices for tourist education.
- Increase educational tours within industry by forestry staff.
- Increased support for outdoor education and tourism links.

5.4 Conservation

5.4.1 Decision-making issues

- Concerned whether their requirements will be adequately met under the RFA.
- Require greater access to Departmental forest information.
- Concerned that they are being excluded from decision making.
- Desire greater participation in regional Forest Management Plans.
- Question some of the scientific assessment work being carried out and lack of inclusion of local scientific knowledge.

5.4.2 Forest management issues

- Harvesting practices causing soil erosion and affecting water quality.
- Need for greater protection of old growth forests, wilderness values and biodiversity.
- Industry practices are not sustainable—too much overcutting.
- Inadequate regeneration after logging.
- Wish to have a say in forest management and harvesting techniques used.
- Desire for more areas to be placed in National and State Parks and Reserves.
- Desire less availability of resource from Public Native Forests for Timber Industry.

5.4.3 Other issues

- Concern over weed infestation problems.
- Concern that some fuel reduction burning is ‘too hot’ for regeneration.
- Concern at loss of wildflowers from harvested areas.
- Feeling of isolation for their views.

- Belief that trucks are destroying tourist roads.
- Need for reduced speed limits for timber vehicles on local roads.
- Concern at loss of birdlife from area due to harvesting and increased single species plantings.

5.4.4 Opportunities

- Accelerate nature based tourism potential to support other regional economic developments.
- Access wealth of local environmental knowledge within extensive Gippsland network.
- Potential for greater links between 'High Country' and coastal environments.
- Support for environmental protection initiatives such as water issues, wildlife protection and a shift towards mixed species landscape plantings.
- Potential for a major National Park for Strzelecki Ranges.

5.5 Other forest use (apiculture, seed collection, firewood and craftwood collection, grazing)

5.5.1 Decision-making issues

- Desire to participate fully in discussions.
- Want more say to get better outcomes.
- Need for all forest uses to be fully considered.
- Need long-term availability to resources to support business.

5.5.2 Forest management issues

- Selective harvesting practices enable better retention of trees valuable for honey.
- Fuel reduction burning affecting honey and pollen sources.
- Improved environmental guidelines required for timber harvesting.
- Need for mixed species reafforestation.

5.5.3 Other issues

- Continued access to State and National Parks.
- Perceived loss of access to hive sites when forests are placed in reserve.
- Need for improved access to obtain additional forest produce (e.g. seed and craftwood collection).

- Perceived river pollution from Alpine development.
- Depend on security of grazing licences.
- Concern regarding loss of timber left on the forest floor which could be used for firewood or craftwood etc.
- Clearfelling practices are too severe.
- Concern regarding weed infestation.
- Loss of access to traditional hive sites.
- Distance to and cost of travelling to sites affecting income from honey.
- Need for increased protection of old growth forest.

5.5.4 Opportunities

- Return to the 'closed canopy' method of forest harvesting.
- Continued access for multiple forest users in all forests.
- Increased forest products linked with tourism.
- Expansion of speciality timber/craftwood market.

5.6 Mineral production (including prospecting and fossicking)

5.6.1 Decision-making issues

- Request greater participation in Forest Management Advisory Committees.
- Increased consultation on forest use and forest values is required by members.
- Question the existence of fauna species attributed to some forest blocks.
- Balanced approach is required.

5.6.2 Forest management issues

- Support for increased funding allocation for maintenance of fire break access tracks.
- Fire Management Guidelines need to be in accordance with CFA guidelines.
- Improved forest management in relation to fire prevention, weed control and track maintenance.

5.6.3 Other issues

- Belief that enough forest areas are already closed up in reserves.

- Uncertainty over access for mining/prospecting, uncertainty for industry and workers.
- Decline in maintenance of track access.
- No need for further National Parks.
- The reference to old growth forests in mining areas needs to be revised.
- Require all public and private native forest to be available for prospecting.

5.6.4 Opportunities

- Possible to achieve outcomes which can satisfy industry and conservation goals.
- Replant with valuable hardwoods, not pine.
- Make more tourism opportunities out of mining/prospecting/fossicking activities.

5.7 Landholders

5.7.1 Decision-making issues

- Would like more say to get better outcomes.
- Desire to participate in the debate.
- Would like to see greater links between the range of forestry programs—public and private.

5.7.2 Forest management issues

- Public/private forest boundary issues are a concern due to weeds, fences, fire and wildlife.
- Concern regarding water quality as a result of harvesting technique.
- Concern about burn off practices (some too hot, too many get away).
- More information/education about forest management on public and private land.

5.7.3 Other issues

- Concern about the visual impact of harvesting.
- Buffer zones are needed to minimise visibility of harvested area.
- Would like access to use forest residue.
- Concern at speed of trucks on local roads and damage made by heavy log trucks.

5.7.4 Opportunities

- Need to increase plantations of native species on both public and private land.
- Greater shared use of forests by forest industry, tourism, and recreation users.
- Commercial farm forestry and plantation potential.
- Opportunity for 'off-farm' income in forest industries.
- Farming and ecotourism potential for landholders.

5.8 Local government

5.8.1 Decision-making issues

- Represented on several timber/tourism/environment committees at a State and regional level, and wish to have further involvement.
- Would like to be advised more quickly regarding any changes to forest management planning or proposals in both public and private land.

5.8.2 Forest management issues

- Want long-term view and planning for industry requirements, to maximise potential in regard to regional economic development.
- Shared use of roads by tourism and timber industries—both require different attention.
- Concern about the visual impact of harvesting.
- Wish to be involved in discussions regarding better planning for landscape buffer zones pre timber harvesting.
- Require substantial funding for road maintenance and upgrading.
- On-going clarification regarding gain or loss of rate revenue associated with forestry activities.
- Planning controls need reviewing on a regular basis for public and private forestry.

5.8.3 Other issues

- Concern in relation to water quality.
- Environmental aesthetics of the area need to be protected.
- Require increased support from government for farm forestry.
- Greater 'lead time' regarding any forest related matters being undertaken, in order to give landholders more notice.

5.8.4 Opportunities

- Economic benefits from industry through direct employment, value of goods produced and flow-on effects to the regional economy.
- Further develop relationship between timber industry, tourism, and landholders.
- Increased forest themes throughout Gippsland for timber products, outdoor education, and recreational use.

5.9 Aboriginal groups/communities

5.9.1 Decision-making issues

- In relation to participation in decision making, more discussion is needed—not large written reports.
- Need for on-going communication and involvement after Gippsland RFA is signed.
- Need longer time frame to respond, especially with new Aboriginal committees being formed.

5.9.2 Forest management issues

- Need to understand that Aboriginal groups do not want to have some areas of Aboriginal cultural significance identified or listed on maps.
- Traditional need for Aboriginal communities to have access to the forests for cultural purposes.
- More direct dialogue and greater participation in the development of forest management plans.
- Request that Aboriginal interests and perspectives are seen as separate issues rather than as an integral part of forest management and decision making.
- Need for further training of forestry workers in identifying Aboriginal sites.

5.9.3 Other issues

- Foremost concern is Native Title and associated land claims.
- Major unemployment problems generally, and would like some opportunities realised within forest management roles.
- Desire greater recognition of need for Aboriginal communities to have access to the forests for traditional/ cultural purposes.
- Concern over logging in sensitive areas of historical/cultural significance.
- Deterioration in water quality due to harvesting in some areas.

- Want more outcomes from Gippsland RFA for future involvement in forest management than was achieved from involvement with the East Gippsland RFA.

5.9.4 Opportunities

- Need for increased employment opportunities for Aboriginal people in forest management roles, regeneration of forested lands and as cultural officers.
- Greater recognition and involvement with the range of facilities at the Gippsland, and the East, West, and Central Gippsland Co-operatives.
- Need to realise the potential for increased Aboriginal cultural tourism.
- Development of initiatives such as ‘Bush Tucker’, revegetation, cultural activities and tours.

6 Community case studies

Within the Gippsland region a total of six case study communities, were selected to provide a more detailed analysis of communities within the region and their linkages to the forest resource. The communities were selected according to the following criteria:

- population size;
- diversity of the local economy; and
- forest industry dependency, e.g. tourism, timber industry, apiary.

The communities selected differed in terms of the diversity of their local economies. Some of the communities selected were more dependent upon forestry as a main industry within their locality, while others had a more diverse economic base. Furthermore, communities were selected according to their population size (small, medium, and large), as well as their potential to be impacted by changes in forest activity. These communities were largely those with a greater reliance on forestry, as measured by number of forest industries within the locality, and a higher degree of employment in forest industries. Stakeholders were consulted about the proposed case study areas at the public meetings when the Gippsland RFA was launched. The characteristics of the case study communities selected are outlined in Table 6.1 below.

Table 6.1 Characteristics of case study communities

	Township					
Characteristic	**Yarram**	**Heyfield**	**Dargo and district**	**Swifts Creek**	**Bairnsdale**	**Sale**
Local government area	Wellington	Wellington	Wellington	East Gippsland	East Gippsland	Wellington
Population	1807	1602	147	228	10890	13366
% population under 15 years	23	25	18	26	23	25
% population 60 years and over	23	21	23	14	21	15
Australian born (%)	94	92	98	95	90	89
Unemployment rate (%)	9	14	25	10	13	11
Living at a different address 5 years ago (%)	37	33	27	36	40	47
Family composition (%)						
Families with children	28	37	25	38	31	35
Families with no children	27	23	31	27	26	35
One parent families	11	11	8	9	11	11
Lone persons	32	26	36	26	29	25
Other	2	3	0	0	3	4
Median household income ($/wk)	427	446	323	523	461	559
Housing stock—separate house (%)						
Owned	42	44	34	42	43	36
Being purchased	15	23	5	7	22	27
Rented	21	18	8	38	22	25
Unoccupied	11	10	50	12	9	8
Main industries in township	Retail trade Health and community services Agriculture, forestry and fishing Education	Manufacturing Retail trade Health and community services Agriculture, forestry and fishing	Agriculture, forestry and fishing Accommodation Education Health and community services	Manufacturing Government administration Retail trade Agriculture, forestry and fishing	Retail trade Health and community services Manufacturing Education	Retail trade Government administration Health and community services manufacturing
Unoccupied dwellings (%)	12.4	10.4	47.7	15.7	9.7	9.6

Source: Australian Bureau of Statistics 1996 Census.

A variety of methods were employed to develop a detailed profile of each case study area, including an assessment of the social and economic structure of communities,

and assessments of significant events in the community and community concerns and aspirations. The analysis draws on information collected during the workshop, as well as other data such as the ABS statistics, Shire reports, community service directories, travel and tourist brochures, Land Conservation Council reports and other publications and extensive fieldwork undertaken by the Victorian Forest Community Co-ordinator.

The term 'community' in the context of the case studies is used in a broad sense, and includes not only residents in the district, but also service providers, Local, State and Commonwealth government authorities, local community groups and other organisations and individuals who have significant expertise or local knowledge of an area. The methods employed aimed to maximise community ownership of the data and allow active participation in the assessment process.

6.1 Community workshop process

To gain a better appreciation of how individuals viewed their communities community workshops were conducted at a central locality within the following case study areas: Yarram; Heyfield; Dargo; Swifts Creek; Bairnsdale; and Sale. The workshops aimed to include representatives from a cross section of the community, see Table 6.2.

Table 6.2 Sectors of the community from which workshop participants were invited

Industry	Apiarists, forest contractors/subcontractors, mill workers, mill management, unions, seed collectors, firewood collectors, tourism operators, other forest users
Forest agencies	Regional staff
Conservation	Local environment groups
Community infrastructure	Commerce/finance, education, health, housing, recreation, emergency services, senior citizens, youth, retail and trade, local government
Indigenous communities	Land councils, local residents
Landholders	Local farmers, Landcare groups

The workshop was structured around asking the participants four questions:

- What have been the significant events in your community in the last ten years?
- How did your community manage two of these events?
- How do you feel about your community?
- What are your visions for your community?

6.2 Yarram case study area

The township of Yarram is the largest settlement in the south west of the Wellington Shire and provides a major service role for the surrounding rural communities, and the agricultural, timber, fishing and tourism industries. Yarram was formerly the headquarters of the Alberton Shire.

6.2.1 History

Central and East Gippsland was opened up by pastoral runs in the 1840s, as people from New South Wales flocked to the area in search of new pastures following drought and depression.

One of the earliest settlements to develop was at Port Albert in the early 1840s following McMillan's discovery. It soon became a major Port initially for the Gippsland cattle export trade to New Zealand, and then to Hobart. The townships of Alberton and Taraville also developed nearby, and were boosted by the discovery of gold in Omeo in the 1850s.

It was during this time that Yarram, a new township to the North of Alberton, was established, and the surrounding areas were developed for farming. John Carpenter, a settler from Devon, established a sawmill and flourmill in the town. The latter provided flour to the gold fields.

In the 1860s and 1870s Port Albert continued to prosper exporting beef, butter and cheese from the flourishing cattle and dairying industry in the surrounds. These times were equally good for Yarram, and the township continued to grow.

The early 1880s saw the decline of Port Albert, Alberton and Taraville townships as the gold supply was depleted, inland roads were improved, and the Gippsland railway was constructed.

However, Yarram continued to grow and take on the role of the commercial centre for the area. A bank was opened in 1886, the first newspaper 'The Yarram Chronicle' was established. There was rapid growth into the 1890s which brought drainage and sanitation to the low-lying township, and by 1906 water was supplied. One of the important industries to establish in the 1890s was the butter factory which supplied butter to Melbourne and exported to the United Kingdom. The significance of the township was confirmed when the new Shire offices were built in Yarram, instead of Alberton, in 1897.

The hospital, which operates as the Yarram and District Health Service today, was built in 1914. Another key event was the arrival of the railway to Yarram in 1921. The township remained dependent on dairying and stock breeding through the 1920s and 1930s, and battled with foxes, rabbits, weeds, floods and regular bush fires, although Yarram was spared the Black Friday bush fire in 1939.

Sawmills were present in the area from early days because of the demand for sleepers for railways. Many of the streets of Melbourne are still lined with sleepers extracted from the Mullungdung forest, north east of Yarram. Forestry became more important during the depression when camps of unemployed men were set up to cut sleepers. A sawmill was opened in Yarram in 1945, but closed in the 1980s.

Yarram saw a number of major changes to the agriculture industry during the 1980s with the restructuring to the dairy industry, the closure of the butter factory in 1987, and the increasing establishment of pine plantations on cleared land. Throughout these times Yarram has continued to play an important role as a major service centre for the region.

6.2.2 Population characteristics

In 1996, Yarram had a population of 1807 people and 743 households (ABS census 1996). It has a relatively large number of young people under 15 years (32 per cent), in contrast to other age groups, although 23 per cent are sixty years and over.

Ninety-four per cent of the population was born in Australia, and 63 per cent have lived in Yarram for over five years.

The housing stock is predominantly separate houses and 57 per cent of households either own or are purchasing their homes.

The service nature of the township is reflected in the fact that 25.6 per cent are employed in the education, health and community services, personal and other services sectors, and 18 per cent in retail trade. employment in the agriculture, forestry, and fishing sector (9.3 per cent) and the manufacturing sector (7.5 per cent). The unemployment rate is nine per cent. The median household income was $427 per week.

6.2.3 Community infrastructure

Yarram has a large retail and commercial centre to service the surrounding agricultural communities, and well serviced with most shopping requirements. The town is also the base for one of NRE's regional offices.

There are six primary schools in the area, the Yarram Secondary College and Mirridong Adult Training school. Yarram has a number of sporting facilities and clubs including an 18 hole golf course. It also has active social and economic groups, such as the Yarram Economic Development Group.

The Yarram and District Health Service is an important resource for the region providing a pubic hospital with 17 acute beds, three maternity beds, a 24 hour emergency service, and a ten bed nursing home. The service also provides extensive ancillary community health services, including pathology, podiatry and physiotherapy services.

6.2.4 Major industries

Yarram has two timber mills, one which processes native plantation timber from the Strzeleckis, and the other which processes softwood from both Hancock Victorian Plantations (formerly Victorian Plantations Corporation) and Amcor's plantations within the Shire.

Yarram is also a rural market and tourist centre. It is a very scenic area, and attracts tourists to the area to a variety of environmental attractions. The golf course includes native vegetation dominated by mature grass trees and 'White Woman Waterhole' in the Won Wron State Forest, with a walking track through grey gums and banksia. Nearby attractions such as the historic fishing village of Port Albert, the Strzelecki Ranges, the Tarra Bulga National Park, and the start of the Ninety Mile Beach ensures that the available accommodation in the region is fully utilised.

Yarram, deriving its name from the Aboriginal 'Yarram Yarram' meaning 'plenty of water', is well known for its agricultural production. The town grew as a result of the rich dairy country and it supplies milk products throughout Australia. Murray Goulburn Co-operative Ltd has a specialised microbiological laboratory located in Yarram. This facility is dedicated to monitoring environmental and product samples from all their dairy processing plants throughout Victoria. Further east of Yarram is good sheep country and throughout the district there are some beef herds.

6.2.5 Yarram community workshop

A workshop was held on 21 September 1998 at the Yarram and District Health Service. Representatives attending came from a range of community groups including: the Gippsland Apiarist Association, the State Emergency Service, Country Fire Authority, Red Cross, the South Gippsland Conservation Society, teacher and pupils from the Yarram Secondary College, the Timber Industry, Yarram and District Traders Group, Yarram Yarram Catchment Groups, Victorian Farmers Federation, Yarram Economic Development Group, Wellington Shire Economic Development Board, Yarram and District Health Service Board, Australian Paper Plantation (A Team), Forest Protection Society, Carrajung Conservation Reserve Federation and the Woodside Landcare Group.

The participants at the workshop identified uses and values on the map of the Gippsland RFA region (see Figure 6.1).

Figure 6.1 Forest use and values identified by Yarram workshop participants

What have been some of the significant events in your community in the last ten years?

The participants listed the following significant events.

Date	Event	Significance
1989	Changes to the timber industry	Radcon Radial Timber development.
Sept 1998		The survival of the Sunwood Mill which employs 23 workers. The mill has faced a number of threatened closures over the last two years, but just recently has been purchased by McDonnell and Sons.
1990s		NRE downsizing (over 20 staff).
		VPC taking over the management of plantations in Victoria, including areas of the Strzelecki Ranges.
		VPC's expansion of the Gelliondale Nursery, formerly managed by NRE.
		Increased Blue Gum plantations in the Strzeleckis (Amcor and VPC) and a decrease in pine plantations.
		The establishment of Radcon, a local timber mill emphasising value-adding.
1990s	Changing agriculture sector	Collapse of wool and beef prices.
		Expansion/recovery of dairy industry.
1990s	Growth of environmental awareness	Local Environmental group had big impact.
		Recognition of dryland salinity in the region.
		Rise of the Landcare movement, Farm$mart/farmers discussion groups, and revegetation projects. These groups have broken down rural isolation and drawn people together.
1990s	Restructuring of local government and government agencies	Amalgamation of the local Council (Alberton Shire) is perceived to have had the effect of more than 60 families leaving.
		Regionalisation of the Water Board.
		Loss of utility workers.
		Closure of small schools in Port Albert, Binginwarri, Wannon and Hedley.
		Restructuring of the Health System; from a threatened hospital to a leading edge community centre. The Yarram and District Health Service provides for the acute, residential and community needs.
		Loss of two doctors—now two remaining; but also the expansion of the Health Services has meant there is a greater variety of specialist services, e.g. podiatry, speech, pathology, physiotherapy.
		Closure of Leongatha to Yarram rail line—to become a rail trail.
1990s	New economic directions	Expansion of 'Bed & Breakfasts', restaurants, and the natural resources potential of the area.
1990s	Community successes	Successfully fought to retain swimming pool opening hours.
		Opening of youth centre at the former railway station.
		On-going commitment to refurbish the Regent Theatre.
1990s	Losses to the community	St Mary's school burnt down (1992).
		Football club amalgamated from five clubs to two; resulting in more travel, less participation.
		Introduction of poker machines at Yarram.
		Loss of Tasmanian ferry service from Port Welshpool.
		Closure of the Omega Station to the public since it was acquired by the Defence Department.

The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community were the restructuring of Local Government and other government agencies, and changes to the agricultural sector.

How did the community respond to the restructuring of Local Government, water boards and utilities?

Many of the participants expressed a sense of loss, including the loss of their Council, a loss or lowering of services, loss of jobs and loss of employment prospects for the future generation.

Yarram had formerly been the administrative centre of the Alberton Shire. Council amalgamation had resulted in major structural changes and a shift of the Council administration to Sale. Privitisation of government utilities and regionalisation of the Water Board brought further changes, including the loss of people and subsequent closure of small schools in the out-lying settlements.

The participants felt that Shire and Government contracts within the district are no longer being allocated to local business instead going to bigger companies based in the Latrobe Region, with little local knowledge or appreciation for the locality. Economically local businesses are unable to compete with larger businesses for contracts, including the local butcher or recycler.

The participants felt a sense of alienation from the new Council because of the distance from the administrative Centre. They felt that decisions were being made far away by people with no interest in 'local issues'.

These changes have made the community more resourceful and self-reliant. The Yarram Economic Development Group and the Traders Group have taken on a more vocal role to ensure that the Shire Council knows of the needs of the Yarram community. The local newspaper also plays a strong advocacy role. The participants also felt that the township had a major role in achieving the establishment of the Yarram and District Health Service. Formerly the Yarram and District Hospital, it was threatened with closure but now since 1996 has been set up as a major regional health service. They also successfully campaigned to retain the opening hours of the swimming pool.

How did the community respond to the changing agricultural and forestry sector?

Although there has been a downturn in beef and wool prices, there has also been a major expansion of the dairy industry in the surrounding district.

The participants felt that there had been a change in landholder values regarding the land and the environment, and recognition of the need to adopt more sustainable agricultural practices. This has flowed on from the rise of the Landcare movement. There are now 12 Landcare/farmer/self help groups in the district looking for ways to improve productivity and competitiveness. These groups have also helped to break down rural isolation and bring people together.

Some participants felt that there was a growing appreciation of the natural values of district and its landscapes. For instance, the Albert River Landcare group is attempting to make linkages between landscape and ecotourism.

There is also an increasing awareness of water quality issues, driven in part by blue-green algae blooms. As a result of these concerns, the Yarram area is now monitoring streams and ground water.

Some participants commented that another key change has been the downsizing of NRE, and the transference of management responsibilities for plantation timber in the Strzeleckis to the Victorian Plantations Corporation (VPC) Some felt the transferring of NRE's management role to the VPC had a number of impacts namely:

- loss of skilled foresters moving to the Latrobe Region;
- loss of resource contracts to local mills, and contracts being reallocated to larger contractors in the Latrobe Region, e.g. the management of Low Land Forests being reallocated with a loss of skilled foresters to Traralgon;
- buying and transferring of licences to other areas.

There was concern that the VPC's operations in the Strzelecki Ranges are being treated as private land. There is some uncertainty about what is being cut—plantations or reserves, and whether the VPC is complying with the Code of Practice for Timber Production. The participants felt they were being left out of the decision making, and that decisions were being made on economic grounds without regard for other values. There is a desire to see the Strzeleckis retained as a multi-use resource, and consideration given to the protection of values, such as water quality. However, the VPC is an important local employer, especially for some part time work for women in the nursery.

How do you feel about your community?

The participants talked of a strong sense of community and attachment to the town, even the young people who move away tend to return later.

There was a sense of resilience in the group, as the obstacles faced by the community has forced them to become more self-reliant. There was stoicism. As instrumentalities and services have been restructured, the community has filled the gaps through voluntary contribution.

Despite the setbacks, the participants felt that Yarram was relatively fortunate compared to some of the surrounding smaller towns. Yarram in contrast has retained many key services, schools and banks (Yarram has five). The community spirit was also boosted when one of the local football teams won the grand final this year.

What are your visions for Yarram?

One of the major visions for the participants was expansion of educational and employment opportunities for younger people so that they can obtain satisfying jobs without having to leave the area. The participants said that young people go to various post-secondary institutions all over the State, although most go to Monash University in Churchill and the TAFE in Sale. The secondary college has a policy to raise retention rates from 70 to 80 per cent.

Some participants were optimistic that the growing dairy industry, which employs 590 people in the district, could provide employment opportunities for young people. Others felt that the local economy needed new small business to bring in new money. The participants also saw a need to develop opportunities in Yarram by retaining resources and value-adding. The promotion of local resources and local contractors needed to be balanced against the fact that some locals derive their income from the Latrobe Region.

There was also a belief that and any new enterprises needed to be self-sustainable, and any expansion of eco-tourism would also need to protect landscape values.

Another vision was the desire to see a major National Park in the Strezlecki Ranges. A proposed reserve has been designed by a local conservation group covering 30 000 hectares.

6.3 Heyfield case study area

Heyfield is located 195km east of Melbourne, and provides an entry point to the Alpine National Park and the high country. Heyfield is seen as a service centre for the agriculture and timber sectors and surrounding dairying and beef cattle district.

6.3.1 History

The town was named after Heyfield Station, the property of an early settler, James McFarlane. It was originally a stopover for diggers and suppliers from Port Albert on the way to the Jordan goldfield.

When the gold rush ended, Heyfield continued as a small township reliant on the surrounding agricultural industries and secondary industries such a tanneries.

The construction of the Glenmaggie Dam and the irrigation of the region promoted the establishment of dairying in the district.

A butter factory was built in 1891 as part of a Government incentive scheme to encourage the modernisation of the dairy industry. Electricity came to the township in

1914 when a new butter factory was built with its own electric lighting plant. The factory closed in 1973.

The Macalister Irrigation System has continued to play an important role in the township through the establishment of an office of the State Rivers and Water Supply Commission in 1945. In 1948 over three hundred displaced persons were settled in the township to build a diversion Weir below Maffra to irrigate the Bungalagual and Sale areas, and a diversion weir at Cowwarr. These operations ceased in 1960, but most construction workers stayed on in and around Heyfield.

The growth of the timber industry came about as a result of the bush fires of Black Friday in 1939. The Government decided to encourage the relocation of sawmills out of forested areas in an attempt to reduce losses from future bush fires. The timber industry boomed in the 1950s with eight companies being granted licences to mill an allocated 120 000 m^3, which was more than the State's total production of high quality timber. By 1991, the number of mills had declined to three, two of which sourced timber from State forests.

6.3.2 Population characteristics

In 1996, the town had a population of 1602 people. A quarter of the population was under 15 years at the time of the census, and 21 per cent were sixty years and over. Seven per cent came from Poland and Germany, many of whom arrived during the construction of the Glenmaggie Dam.

The unemployment rate of 14 per cent in 1996, was similar for all age groups.

The township is dependent on the two timber processing mills which accounted for 24.1 per cent of the employment. Employment in other timber related industries (agricultural and forestry) accounted for a further 7.9 per cent. Retail trade and accommodation, cafes and food was the next major employer with 18.9 per cent. Another 15.3 per cent were employed in the health, education and government sectors. The median family household income was $446 per week.

About ninety per cent of NSTI employees live in Heyfield. A considerable number of the logging contractors also live in Heyfield. The Mill generates $50 000 in wages for the township on a weekly basis, as well as purchasing other goods and services.

The ABS statistics indicated that there were 533 people who had lived elsewhere five years before the census. This may reflect the high turnover associated with the timber processing operations although it may have stabilised since the restructuring of the mill operations in 1996.

6.3.3 Community infrastructure

Heyfield is small compact township with two primary schools (one attached to the Catholic Church), three churches, a police station, and a memorial hall.

The Resource Centre, which is an annexe of the Sale TAFE, provides a diverse range of training sessions, including, patchwork, ceramics, weight loss and nutrition, french polishing, as well as occasional care and a playgroup for pre-schoolers.

The township has several health facilities including a doctor, the private hospital, the Laurina Lodge Hostel which caters for the frail elderly, and ambulance facilities.

The shopping centre has a small range of shops, one bank, and two hotels. There is also accommodation offered for visitors to the township; a motel, a hotel, 'Bed & Breakfast', caravan parks and camping facilities. The mail service is daily and has been recently extended. There is a local newspaper.

It is well serviced with sporting facilities, including a swimming pool, football and netball reserves, a basketball stadium, bowling club and two ovals.

Tourism is an important aspect of the township because of its proximity to tourist drives in the Maffra region, and features such as Lake Glenmaggie, situated just 7km north of Heyfield, for boating, water skiing, swimming and fishing and Mt Tamboritha and Mt Skene for nordic skiing, bush walking and trail rides.

6.3.4 Major industry

Heyfield is the centre of the hardwood timber industry in the Wellington Shire. During the post-war housing boom there were nine sawmills in Heyfield.

Neville Smith Timber Industries (NSTI), one of Victoria's major producers of kiln-dried hardwood is located in the east of the township. In 1987 NSTI processed 40 000 m^3 sawlog and employed 70 people. It now processes 110 000m^3 sawlog and 150 people work directly at the mill. Over the past four years NSTI begun exporting furniture grade timber to sixteen different countries, representing a third of their overall production.

As well as NSTI, there is a smaller timber mill (Heyfield Timber) located in Heyfield.

The participants at the workshop identified uses and values on the map of the Gippsland RFA region (see Figure 6.2).

Figure 6.2 Forest use and values identified by Heyfield workshop participants

6.3.5 Heyfield community workshop

A workshop was held at the Heyfield Resource Centre on 22 September 1998. The workshop was attended by local residents of Heyfield and the surrounds, representing a broad range of interests including: the Heyfield Traders and Tourism Association, Heyfield Interpretation Centre, Timber and High Country Association, Forest Protection Society, Landcare, Heyfield Fire Brigade, NSTI, Mountain Cattlemen's Association, Avon-Macalister-Thomson Rivers Implementation Group, Tourism, Apiarists, Wellington Shire Council, Heyfield Post Office, Lions Ladies Group, and Heyfield Hospital Auxiliary.

The participants at the workshop identified uses and values on the map of the Gippsland RFA region (see Figure 6.2).

What have been some of the significant events in your community in the last ten years?

The participants listed the following significant events.

Date	Event	Significance
1990s	Loss of services/employment	Closure of the Ladners sawmill which employed 45 people in 1995.
		Closure of the Commonwealth Bank in 1998.
Current		People go to larger centres for some facilities, e.g. Centrelink, poker machine, which results in a loss of business to Heyfield.
Current		It is difficult for youth to get to Sale TAFE because of reduced/limited public transport.
Early 1990s	Restructuring of local government and government agencies	Amalgamation of Shire and Water Boards impacted on local businesses. The Shire and Water Board no longer purchase supplies such as hardware, or use local services like electrical subcontractors.
1997	Natural disasters	The worst bush fire occurring in 1997–98. A large number of volunteers were based in Licola. The fires were of such severity that grazing is being excluded from the area during the 1998–99 season, and NRE has had to find alternate grazing areas.
1998		Bush fires in January 1998. Heyfield is a base for a summer fire crew of 50 additional people provided by NRE and Parks Victoria from November to March.
Current		Immediate need to salvage timber burnt in the 1997–98 fire before it deteriorates.
		The dairy industry, a key employer of the district, has faced harsh times because of the drought over the last two years and the high costs of irrigation water. As a flow on there is less money to spend in the town.
		The impact of the drought on agriculture. A majority of dry land farmers are in debt and many are receiving social security benefits.
1996–98	Decline of the agriculture sector	The Sales Yards operations are becoming increasingly marginal because of the downturn in beef. These 'sale days' are important economically for the township because they bring families into the town to shop.
1993	Restructuring of health services	Laurina Lodge Heyfield—28 bed hostel for the elderly was established. It now has a waiting list. The other closest hostel is in Maffra.
Current		Hospital amalgamation is being mooted between the Heyfield Private Hospital and the Gippsland Base Hospital in Sale.
1990s	Growth in tourism	Increasing number of tourists. Participants felt some ambivalence to tourism. One person described it as 'the weekend plague'. Others felt that Heyfield didn't gain a lot with tourism, possibly only the takeaways; it was felt that there is not much accommodation for tourists, and that poor signposting did not encourage tourists to actually detour off into the town centre. The other negatives associated with tourism is the costs of cleaning up camping areas, e.g. along Wellington River. Currently camping fees are not charged.
Current		Proposal to restock Lake Glenmaggie and the Macalister River with Trout and Bass.
Current		The disused rail link to Stratford and Traralgon (gone for 20 years) is now being proposed as a rail trail.
1990s	Reduced access to Alpine National Park for bee keeping	Apiarists feel that there are fewer areas for beekeepers and more areas being assigned for tourists.
Late 1980s	Alpine National Park	The National Park was proclaimed.
1990s	Growth of environmental awareness	Involvement of Landcare groups and the CMA in waterway management, e.g. extensive works on the Macalister River dealing with erosion.

The participants were asked to choose two events to consider in greater detail. The participants felt that the restructuring of the Council, the Water Board, and the closure of the Ladners Mill probably had the greatest impact on the township.

How did the community respond to the restructuring of Local Government water boards and utilities?

Heyfield was formerly in the Maffra Shire. The restructuring of the Council and the Water Board resulted in the closure of small depots. The Councils and the Water Board no longer purchase supplies locally. There was a loss of jobs for the local contractors as the Shire awarded larger contracts to bigger firms.

The participants felt that restructuring has resulted in the Council no longer being as responsive to complaints or phone calls, e.g. to fix a pothole. Rather a service request has to be slotted into the work program which tends to take longer. It was conceded

that the new approach may mean greater efficiencies and savings, but to the community it is seen as a decrease in service delivery.

The participants felt they were less represented in Council because there are now only seven councillors representing the entire Shire. Although Heyfield has a local councillor, the representation is on a municipal wide basis and not as a riding base. To deal with the issues of competing local interests the Council has set up new arrangements. The Forum of Leisure and Heritage, with community representatives across the Shire, allocates priorities across the Shire.

How did the community respond to the closure of the Ladners Mill?

The closure initially meant the loss of 45 jobs, however, over the last three years NSTI has employed 23 of these retrenched workers. The closure affected thirty families, although most stayed on in Heyfield, and commuted to Morwell if necessary.

When Neville Smith purchased Ladners in 1996, the timber allocation was included in the sale, retaining resources in the community. It was felt that the new mill operations and restructure have brought greater stability to the township, greater job security and less staff turnover. The company also changed its workplace arrangements from an award wage system to award wage with performance allowances.

Between 1979–1996, NSTI also bought mills at Ensay, Swifts Creek, Dargo and Heyfield which had licences to log good quality Ash.

A number of workers cottages adjacent to the mill, were formerly owned by the mill and rented to employees. As the mill has sold these houses off there has been increasing concern about the co-existence of the mill operations along side the houses. The Shire is looking for ways of providing adequate buffers to protect residential amenity whilst ensuring that the mill can successfully operate.

How do you feel about Heyfield?

Heyfield can be characterised as a hard working community ‘who do things for themselves, and don’t wait for others’. The Heyfield residents have built their own swimming pool and hospital. The participants felt it was important that they ‘hang on to what we’ve got’.

Most felt very attached to Heyfield and said it was a safe caring community. Recent successes such as the local football and netball teams winning their Grand finals also help to bond the community.

Despite this the participants recognised that the township offers few opportunities for young people either in terms of education, training or for jobs. In the past, there had been plenty of employment due to the combination of the timber industry and State Rivers but this has declined over the last 20 years. It is generally accepted that young people will move away to get employment or training. Because of this some families would like to move out but they find it difficult to sell their homes.

What are your visions for Heyfield?

A key vision related to water management. Firstly, to keep the Lake Glenmaggie weir full all year around. Because most of the water is provided to the Macalister Irrigation District, the Lake is not full for most of the year. Some participants felt that higher water levels all year around would promote a greater use of the area for water sports, fishing and encourage investment in tourist infrastructure around Lake Glenmaggie.

Secondly it was felt that there should be better management of river and stream flows coming into and out of the weir, and that releases of water are ill-timed (when least required for agricultural purposes), are damaging farmlands down stream, and causing stream bank erosion.

A number of participants desired to have a stable district population reflecting a stable timber and dairy production. They saw that there was a need to provide opportunities for young people to keep them in the town. NSTI is promoting the establishment of 'satellite industries' which value-add to their timber products and provide new enterprise opportunities for young people when they graduate to attract them back to the township. The first of these has been established in Bairnsdale. Ideally NSTI would like to see one established in Heyfield but they have not been able to find a suitable site and building.

Finding new tourism opportunities is another community goal. NSTI is planing to construct a new state-of-the-art dry mill in the future. This will be able to provide for tourist inspections, in accordance with Occupational Health and Safety regulations. This is not possible in the current green mill operations.

The construction of a 'Timber and High Country Interpretation Centre' in the township was seen as another opportunity for the township. The old railway land in the centre of town is being used by the community for an interpretation centre. Concept plans and a 'Tourism Strategy' are being developed and the community will be asked to contribute to these plans. Funding for the project is currently being sought. Preliminary ideas for the Centre are that it would:

- complement, not duplicate, existing services
- be self-sufficient
- be a multi-use centre for the local community, and expand on the TAFE facilities which exist on the adjacent site
- tap into school curriculum and provide educational opportunities for students that pass through the township on the way to their school camps in the highlands.

It was hope that through facilities like the Interpretation Centre that Heyfield would become a destination rather than a place, which is passed through.

The continuation of timber resources for NSTI was seen as a priority to provide Heyfield with stability.

6.4 Dargo case study area

Dargo is a small township of approximately 80 people. It is located on Dargo High Plains Road and the Dargo River, and is the gateway to the snowfields and the high country National Parks. Now that the road is sealed it is an hours drive to Bairnsdale.

6.4.1 History

The Jones brothers took one of the earlier grazing leases on the Dargo High Plains and built the first home in Dargo.

After gold was discovered in the region in 1864 by Angus McMillan, people flocked to the area. Dargo became a wagon stopover to the goldfields at Grant, and 16 kilometres north of Dargo. But the fortunes of Grant were short-lived, and the township was abandoned by the turn of the century.

Dargo on the other hand continued to survive. Grazing was the major activity although hops and walnuts were grown along the river flats in the latter part of the nineteenth century.

Gradually Dargo took over many of the functions from Grant, such as the Court of Petty Sessions. Many building were relocated from Grant to Dargo, including the Dargo Community House, which was brought down by bullock team.

In 1955 a timber mill was established at Dargo and by 1977 was cutting 12 600 m^3 of sawlogs. However the mill was closed in 1993 and now the town relies on local agricultural activities and tourists coming to the High Plains areas for activities such as deer hunting or fishing.

6.4.2 Population characteristics

The population of the township of Dargo and its environs in 1996 was 147 people (ABS 1996). It is an aging population with 23 per cent over 60 years. In 1996, 18 per cent of the population was under fifteen years old, but this may have declined since the primary school closure at the end of 1996 as families relocated closer to schools.

Ninety-eight per cent were born in Australia, and 73 per cent had lived in Dargo for at least five years.

Half of the working population is employed in agriculture and forestry. Some 18 per cent work in the retail and accommodation, and a further six per cent is involved in government administration. In 1996, 12 per cent were employed in education and 12 per cent in health and community services. There are no trades people in the town. The closure of the primary school has probably impacted on these statistics. The median household income was $323 a week which would put the community in one of the lowest income brackets.

6.4.3 Community infrastructure

Dargo has a variety of accommodation including the Hotel, the newly constructed Motor Inn, the cabins at the Mill Tavern, two caravan parks and a Bed and Breakfast at the winery.

There is a general store (which includes the post office), tearooms, a hotel, two churches, the CFA garage, and the public hall. Although the primary school is closed the building has been retained at this stage in case the numbers of children grow to support a school.

In 1968 the Department of Natural Resources and Environment opened offices in the township, (as the former Forestry Commission). Previously the area was serviced from Briagolong.

The Dargo '*Bush Bulletin'* informs the locals of upcoming events, such as the schedule of church services, visits from the hairdresser, and other service providers, and the winners of local raffles.

6.4.4 Major industry

Beef production predominates, although there is some sheep farming. Dargo also produces a significant amount of the State's walnut production, much of which is grown on the trees planted a hundred years ago by the earlier settlers.

Dargo has also experienced increased tourism though it's proximity to National parks. Tourism activities include deer hunting, fishing and bushwalking.

The area also produces high quality honey from Snow Gum, Alpine Ash, Mountain Ash, Red Stringybark, Yellow Box, and Silvertop forests.

6.4.5 Dargo community workshop

A workshop was conducted at the Dargo Hall on 23 September 1998. The participants represented the Dargo CFA, the local hotel, NRE, Walnut Festival Committee, Mountain Cattlemen's Association, the TV Committee, Forest Protection Society, the Hall Committee, the Cemetery Trust, the Catholic Church Group, the Church of

England, the Bush Nursing Service, the local Store and Post Office, VAFI and Dargo Landcare. A number of apologies were received from those concerned with the rising waters of the Wonnangatta River.

The participants at the workshop identified uses and values on the map of the Gippsland RFA region (see Figure 6.3).

What have been some of the significant events in your community in the last ten years?

Date	Event	Significance
1965*	Bush fires	The major bush fires highlighted the vulnerability of the township, and subsequently brought the development of the Bairnsdale-Dargo road.
1970*	Electricity	Switched on at Christmas.
	Phone	Service installed
Late 1980s	Better road links	Construction of a bitumen road from Bairnsdale.
1990s	Natural disasters	Floods in 1990, 1993 and 1998.
		Drought in 1982 and 1996–98.
1990s	Downturn of the agriculture sector	Changing agricultural scene and the decline of the beef and sheep industries.
1994	The closure of the Dargo sawmill	This was the major industry in the district, and the closure resulted in the loss of 16 jobs, plus another ten associated jobs.
Dec 1997	Closure of the primary school	The school was just on a hundred years old, and needed five children to stay open, but numbers were down to three by the end of the year. It was a focal point of the community, and although they knew it was under threat, they had not expected it to close so soon, resulting in young families leaving town.

* While these events are prior to the last ten years, the community identified these events as very significant.

The participants were asked to choose two events to consider in greater detail. There was a high degree of consensus about the two key events, namely the closure of the mill and the downturn of the agriculture.

Figure 6.3 Forest use and values identified by Dargo workshop participants

Unlike the workshops in the other locations the participants did not feel that the restructuring of the Council had been significant. They were dismissive of the role of the Wellington Council, although they were very positive about their relations with the former Avon Council.

How did the community respond to the closure of the mill?

They felt that every mill job lost meant the loss of a family. Without the mill as the major industry, there was little alternate work so that many of the 16 individuals and their families left town. The departure of families and loss of school-age children contributed to the school closure three years later.

The mill's closure also impacted on the social and economic life of the town. Shopping declined, and there is no longer a tennis club or cricket club. In the past the town hosted five Balls at Christmas time, whereas now only one is held.

The participants felt the main loss was people, and that the town has not recovered. The township now is aging because young families tend to leave when the children get to school age. The children either board away or the family has to move.

The population loss puts a strain on the remaining locals to keep things going leaving the 'same old faces' to make up the Committees. However in recent times the participants felt that the town is becoming a retirement/getaway place for people from Melbourne; it is a $4^{1}/_{2}$ hour trip. This in part is happening as properties are subdivided and sold. At the moment, five houses are being built, four being weekenders. The participants have noticed that the town is busier during the weekends when the 'newcomers' come in. However, it has not boosted the towns retail activities significantly because they tend to bring in some of their own supplies.

How did the community respond to the changing agriculture scene?

The district income has declined with changing commodity prices for beef and sheep. Most farm families now support the farm with off-farm income, some work for NRE who employs 10–11 part time people during the fire season. Other off-farm income is derived from working on 'newcomers' properties. Some of the group lamented that they used to be in the financial position to employ other people on their properties, but they now have do all their own work.

How do you feel about Dargo?

The participants felt that Dargo is widely known as people go through the township on the way to the snowfields, or because of its association with the high country.

Dargo was described as being in the 'middle of a recreational area which has a clean river system and forests'. It is a safe place to live with a great living environment and friendly people.

It was accepted by participants that it was 'sort of remote' especially if something happens or goes wrong. Currently a helicopter is not far away for emergency use in

the case of illness or accidents, although it may ultimately be stationed at Melbourne rather than Sale. Most participants did not see the hours drive to Bairnsdale as a limitation. Milk and bread can be ordered and delivered with the mail.

They felt it was the little things that made the township 'remote', and related mainly to the lack of basic services. Dargo lacks a reliable phone service. It is remote in that mail and newspapers only come to the Dargo township on Monday, Wednesday and Friday. The Crooked River and the Lower Dargo area now receives mail on Wednesday and Friday, which is an improvement.

Despite the isolation, the participants were proud of their community, its self-reliance and self-sufficiency. There are a large number of community groups and committees, including High Country and Tourism Group, Landcare Group (32 members), Fire Brigade Group, Bowls Group, Cemetery Group, Angling Club, and Bush Nursing.

One committee organises the Walnut Festival in Easter every year with its 'King of the Mountain' (a race to the top of the hill carrying a sack of walnuts), horse events, and a dance. The Walnut Festival brings many tourists to town and is a key fundraiser for the town. Most of the revenue is invested into services for the town's community.

The Dargo TV Committee has also been very successful. Television reception was poor with everyone trying their own way of improving reception. Finally one of the local residents proposed that a community repeater system be established**.** The community set up the Dargo TV Committee, and took six years to raise funds for the repeater system. It cost over $20 000 to establish, and costs in the vicinity of $4000 per annum to maintain. The local community has achieved all this on their own.

The participants felt that the community is now more accepting of 'newcomers' in contrast to former times when the locals did not welcome them as openly. There is a realisation that Dargo had to change and the town needed new people to prosper.

What are your visions for Dargo?

The participants recognised that Dargo was going to have to change and develop but they do not want Dargo to lose its special qualities which attracted people to come to Dargo in the first place.

Tourism was raised as the most likely economic base for the township. For instance deer hunting is the biggest industry during winter months. However the participants were frustrated that other tourist opportunities were not being realised. Fishing has declined since restrictions were introduced to ban fishing from June to August. According to the participants NRE has told them this is so that the stock can build up, but their concern is that they have also been told that NRE will not restock the rivers because the fish are not native.

There was still interest by some of the participants in a project to dam the Mitchell River in order to control the water supply for cropping, drinking, promoting water sports, tourism and employment. This three-stage project commenced, but was later abandoned.

Some felt an all-year sealed road to Mount Hotham would promote tourism, as the town is the last stopover before the snowfields, as well as being a desirable destination, and the township could provide cheaper alternatives to chalets.

In spite of these aspirations, it was felt that important decisions for the region are likely to be made without regard for the impacts on Dargo. 'Whatever happens Dargo is going to have to look after itself.'

6.5 Swifts Creek case study area

Swifts Creek is a small highland settlement along the Great Alpine Road, 90km north of Bairnsdale, and 32km south of Omeo. The area relies on agriculture, the timber industry, tourism and some mining as its main economic base.

Because of the settlement's proximity to the snowfields and the high country, and now with the improved access due to the sealing of the Great Alpine Road, some people believe that the future lies in developing the tourist potential of the area. On the other hand, Swifts Creek remains a 'timber town' for many.

6.5.1 History

Angus McMillan established the Numbie Munjie Station (now Ensay) in 1839 and commenced a track to the Lakes; which became the Omeo Highway.

When gold was discovered in Omeo in 1951, goldfields sprung up around Omeo, despite it being very isolated because of poor road conditions. Although there was some alluvial mining along Swifts Creek, areas such as the Cassilis goldfield (just west of Swift Creek) were more significant. The land around Swifts Creek was made freehold during the 1870s, and grazing and sheep became the major income for the township.

Alluvial mining ceased in 1890s but there was a new boom of reef mining in Cassilis, Sunnyside, and Glen Wills areas north of Omeo. This was not to last and by 1914 these goldfield were deserted. Swifts Creek on the other hand continued to survive as a small settlement serving the surrounding grazing areas, which battled severe rabbit infestations and farming on a steep terrain.

In the 1920s Swifts Creek acquired a number of services such as the police station, a pipe works, a butter factory, the Bush Nursing Service, and a fire brigade. Development was slow for the area during the 1930s depression with local business people and farmers in debt as wool prices plummeted.

In the mid 1940s Swifts Creek began to expand. The Ezard mill was established in 1946 with a comprehensive housing scheme for its employees. In the 1950s Swift Creek prospered with the presence of the mill and good wool prices. In 1955 the first central school for the district opened in Swifts Creek, and a school bus service was put into operation to transport the children from the neighbouring areas. By 1963 the school was upgraded to a secondary school.

6.5.2 Population characteristics

In 1996, Swifts Creeks population was 228 people. The age distribution reveals a relatively low number of people aged from later teens to the thirties, reflecting the trend for young people to leave the township for further education or employment opportunities. Swifts Creek also has lowest percentage of people over 60 year old compared to the other case study towns (14 per cent).

Ninety-five per cent were born in Australia and 64 per cent have lived in Swifts Creek for more than five years. Nearly 50 per cent either own or are purchasing their homes.

The timber industry was the major employer—manufacturing (23 per cent), but the government administration (17 per cent), retail trade (12 per cent), agriculture forestry and fishing (11 per cent) and mining (10 per cent) were also important. The median household income was $523 per week, and the unemployment rate was 10 per cent in 1996.

6.5.3 Community infrastructure

Swifts Creek has a milk bar, general store, post office, bakery, two service stations, hotel and a winery. An electrical contractor and mechanic also operate within the township. There is a Primary School, the District High School, Police, NRE office, and the Country Fire Authority base. It also has a TAFE outreach centre, a community centre, and a bank agency operates from Omeo three days a week.

Health services include a bush nursing service, the Omeo District Hospital, an ambulance service (Ensay and Omeo), and a doctor who is based at Omeo visits Swifts Creek one day a week.

There are many sporting opportunities in the District (Swifts Creek, Ensay, Benambra and Omeo): football, netball, tennis, lawn bowls and pony clubs, fishing shooting, golf, picnic race clubs, a swimming pool, cricket and squash courts.

6.5.4 Major industry

Timber harvesting did not become an important industry locally until 1930 when a sawmill was established Near Mount Baldhead, south west of Swifts Creek. With the post war demand for timber the Ezard sawmills were also established in Swifts Creek.

In 1977 the Swifts Creek-Ensay area had three sawmills and directly employed 115 people; 101 people by 1982. In the late 1980s the Ezard mill in Swifts Creek expanded with a green mill and a veneer production plant and invested about $9 million. It then went into receivership and was bought by Neville Smith Timber Industries.

Since the social assessment workshop was held there has been a fire at the mill, and Neville Smith Timbers have decided to close the mill and give staff the option to relocate to Heyfield. The Swifts Creek community is engaged in a campaign to reverse this decision.

6.5.5 Swifts Creek community workshop

The Swifts Creek workshop was held on 29 September 1998 at the Swifts Creek hall. The participants who attended represented Gippsland Apiarists Association, tourism, the timber industry, Victorian Farmers Federation, NRE, pupils and a teacher from the local primary and secondary schools, Ensay Community Health Centre, the East Gippsland Shire, the CFA, local traders and businesses, the Post Office, the mining industry and Landcare.

The participants at the workshop identified uses and values on the map of the Gippsland RFA region (see Figure 6.4).

What have been some of the significant events in your community in the last ten years?

Date	Event	Significance
1989	The closure of the Ezard Mill	The closure of the Ezard Mill resulted in a loss of 100 jobs in 1989. The community had previously experienced another mill closure of Burwood in 1987 and also the relocation of Benambra mill and employees in 1989. It was difficult for the four small mills to adapt to the change of government policy and Timber Industry Strategy which reduced the number of licences and required mills to value-add.
		The Ezard Mill was purchased by NSTI and since then twenty-two of the workers have been employed.
1990s	Downturn in the mining sector	There has been a downturn in the mining sector, e.g. the closure of the mine at Benambra in July 1993.
		Native title claims in the area have halted the proposed Marble Mine.
1990s	Restructuring of local government and government agencies	Restructuring of Local Government. The township was formerly in the Shire of Omeo. Now there is only one councillor representing a much larger area, whereas there used to be 6–8.
	Withdrawal of commercial and government services	The CBA bank in Omeo closed and now operates through a private agency. The NAB has been reduced to three days a week. Closure of the Ensay school and the SEC depot in Swifts Creek in the early 1990s.
1996–98	Natural disasters	In the last two years, the community has experienced the worst drought (1996–98) and worst flood (1998).
		The effects of drought and flood have been exacerbated by the detection of Johnes Disease in the District in 1995 with a loss of employment. The participants are concerned that the district's name is being associated with the disease even though a majority of properties are unaffected.
		As a result of the drought some farmers are using the bush for extended grazing with possible adverse environmental effects.
1990s	General rural downturn	The decline of beef and wool commodity prices has resulted in a loss of employment, lower incomes and the effects have flowed onto community with people leaving and the school numbers falling. As people leave the area the social infrastructure is reduced, e.g. the loss of the Ensay Football Club.
1996	Opening of Great Alpine Road	The negative effects of the opening of the Great Alpine Road, e.g. increased litter on the highway, and new weed infestation.

The participants were asked to choose two events to consider in greater detail. However, the Swifts Creek workshop chose to look at only one issue, the diminishing township and loss of services and facilities.

Figure 6.4 Forest use and values identified by Swifts Creek workshop participants

How did the community respond to the closure of the mills and the rural decline?

The closure of the mill meant a loss of jobs, and a loss of young people in the district. The restructuring of the timber industry also impacted on NRE. Twenty years ago the Department had 17 officers, this is now reduced to three, although a summer crew is employed during the fire season. The town is shrinking, leaving the same people to do even more work on the community committees.

The participants feel alienated because Government decisions which impact on employment and the town are beyond their control, such as Parks Victoria decisions being made from the Bright Regional Office, in North East Victoria.

Contracts are going outside the area, although there is some contracting of locals. Farm incomes have not increased, but input costs have risen.

Farms have been amalgamated over the last 15 years, resulting in an increased number of vacant houses. Young people are leaving and older retirees are moving in. There has been some interest in holiday places and weekenders, but the Council has not supported the subdivision of rural land into smaller allotments. Some participants felt it should be possible to compromise so that people are able to subdivide and be able to move out while still retaining a good viable farm property.

How do you feel about Swifts Creek?

Overall the participants felt very positive about the township and described it as ‘a timber town’, ‘a great place’, and a ‘supportive and safe’ community to bring up children. The community takes its own initiative to get things done. On the down side they felt it was ‘regionally isolated’ and a ‘bit forgotten’.

It takes an effort to access services in this area, e.g. poor television reception (this has now been rectified by community owned and operated receiver) and the electricity supply is subject to frequent interruptions. There has also been a decrease in bus services to and from surrounding areas.

They also felt that key decisions were being made by those outside the community, by people without any regard for or knowledge of Swifts Creek.

What are your visions for Swifts Creek?

A central vision of the participants is to maintain and improve the community’s access to services, so that it has a standard of living similar to city dwellers. One of the participants wanted to prove the statistics wrong about the declining rural communities, with Swifts Creek showing that it was possible to generate new opportunities to bolster the community. There is a need for backups to essential

services, including medical services, roads, power supply, phone and computer links. Communication is seen as paramount. A communication tower is proposed at Omeo but it will not serve the valley. There is also a need for better optic fibre linkages. The participants also felt that the emergency helicopter should be a guaranteed service from the Government, as it is often faced with funding cuts.

Some participants talked of the proposal to construct a low-level road down the Mitta Mitta to gain all year access to the North East. Currently there is a ban on trucks and heavy vehicles using the Great Alpine Road from June to September, even though tourist buses are allowed in. The participants felt aggrieved that during the drought (when weather conditions would not have hampered travelling) there was no consideration to waiver this restriction so that local district could get supplies in and stock out.

Another theme related to improving the economic base of the township. There was a very strong sense by the participants that Swifts Creek is a timber town, and that as the mill was its major economic base the town should strive to keep the mill and value-add in Swifts Creek. Some participants also felt there was a need to broaden this base by supporting and encouraging sustainable agriculture, mining and tourism.

It was also felt that there were tourism opportunities by capitalising on the presence of the National Parks in the area, and future benefits which might flow from the proposed international airport at Horse Hair Plain, near Mount Hotham.

6.6 Bairnsdale case study area

Bairnsdale is situated 280 km east of Melbourne in the East Gippsland Shire along the Princes Highway.

It is the major service centre for the East Gippsland Shire, and contains a full range of commercial and retail facilities, a regional hospital, a range of educational facilities, and public sector services, and an airport.

6.6.1 History

Archibald Macleod, a squatter, first settled the area in 1842, and the settlement expanded as land selections took place along the Mitchell River and Bairnsdale in the 1860s.

The township is situated on the Mitchell River, a short distance upstream from the Gippsland Lakes, which was once a thriving Port. Transport and supplies to and from Melbourne were initially by steamer traffic from the lakes and rivers. A permanent entrance to the lakes was constructed in 1889, which made the journeys less hazardous.

From the 1870 to the 1880s, the township was a major producer of hops, wheat and oats along the river flats. It was a fairly prosperous time and a period when many significant buildings were constructed, including the Courthouse, the Mechanics Institute, the Railway Station and St John's Church.

However, the linking of Bairnsdale to the Melbourne-Sale railway line in 1888, and the difficult navigability of the entrance to the Lakes, resulted in the role of the port being supplanted by rail and road transport.

Ironically the railway link to Sale is now closed (in 1993) and it is being proposed that the Port of Bairnsdale be re-established to promote tourism. The section between Bairnsdale and Orbost is a 'Rail Trail'.

The extension of the railway line to Bairnsdale in 1880s was also significant in that it stimulated dairy and agricultural production. From the 1890s dairy, cattle and sheep farming became increasingly more important than grain.

In 1982, the Bairnsdale area had one sawmill at Bruthen (since closed), and two at Bairnsdale (still operating).

Bairnsdale has continued to serve the surrounding agricultural, and horticultural areas.

6.6.2 Population characteristics

The 1996 census indicated that Bairnsdale has a population of 10 890. There is a large aboriginal community in Bairnsdale (3.2 per cent).

Twenty-three per cent of the population is under 15 years, while 21 per cent is 60 years and over. Ninety per cent of the population is Australian born, and sixty per cent lived in Bairnsdale five years ago. Sixty-five per cent own or are purchasing their homes.

The service sectors—education and health and community services—are the major employer (23.0 per cent), followed by retail trade (20.6 per cent) and manufacturing (10.6 per cent). In 1996, the median household income was $461 per week, and the unemployment rate was 13 per cent.

6.6.3 Community infrastructure

Bairnsdale is a major public sector administrative centre for the East Gippsland Shire.

It is a popular place for retirees because of its milder climate, pleasant landscapes and waterways. It also provides a wide range of health and welfare services for the elderly, including a regional hospital, a community Health Centre, private medical and health clinics. There is also a full range of emergency services, ambulance, fire brigade, 24-hour police service, and State Emergency Services.

Bairnsdale has a full range of services for young families, including three pre-school centres, a Maternal and Child Health Service, a Neighbourhood House, several

primary schools in the district, a secondary college, a catholic primary school and catholic secondary college. With the closure of several district schools, primary pupils now travel to Bairnsdale. Year 11 and 12 Secondary students from Lakes Entrance also have to travel to Bairnsdale.

The East Gippsland Institute of TAFE (affiliated with Monash University and RMIT), the TAFE College and Outreach Centre provide important educational resources.

There are a number of services to meet the specific needs of the Koorie community. The Krowathunkoolong Keeping Place aims to facilitate greater community awareness, understanding and pride in Aboriginal culture, arts and crafts. It houses a large display of contemporary and historical aboriginal artefacts, provides guided tours, cultural talks and displays various exhibitions.

Regional offices of the Department of Human Services and the Department of Natural Resources and Environment are located in Bairnsdale.

There are ten churches of different denominations, and a large number of community and volunteer groups including Rotary, Lion, Apex and Probus service clubs, and sporting clubs.

6.6.4 Bairnsdale community workshop

The Bairnsdale workshop was held at the Neighbourhood House on 30 September 1998. The participants attending represented the University of the Third Age, Department of Human Services, Forest Protection Society, NRE, TAFE, Tambo Environment Awareness Group, the Shire Council, Bairnsdale Senior Citizens Group, Victorian Economic Development Association, timber and logging contractors, the Gippsland Apiarists Association, Bairnsdale 4WD Social Club, Land for Wildlife, Bairnsdale Landcare Tree Group, the Gippsland Community Network, Network of Neighbourhood Houses, Australian Plant Society, South Gippsland Australian Plant Society, Rural Fire Brigade Association and tourism.

The participants at the workshop identified uses and values on the map of the Gippsland RFA region (see Figure 6.5).

Figure 6.5 Forest use and values identified by Bairnsdale workshop participants

What have been some of the significant events in your community in the last ten years?

Date	Event	Significance
1990s	Community successes	The Very Fast Train proposal.
		Eastern Gas Pipeline is being provided to Bairnsdale.
		The development of 13 telecentres in Gippsland under the Gippsland Telecentre Network (GTN) 60 sites are now in operation through the Gippsland Community Networks (GCN). The project is designed to help people gain easy access to the Internet, reduce costs and to generate new businesses and income. Some communities still have to pay STD prices. Although the project relies on volunteers.
1990s	Restructuring of local government	Amalgamation of the former City and Shire of Bairnsdale, and Shires of Tambo, Omeo and Orbost to form the Shire of East Gippsland. The amalgamation was seen to cause the loss of about 500 jobs, although most contracts were let out locally and many former council people were re-employed through service contracts.
1990s	Reduction of services	Downsizing of Government Departments has reduced the income circulating in the local community.
		School closures—Johnsonville, Ensay, Dargo, Mount Taylor, Sarsfield, Munro, Kalimna, and Buchan South. Pupils now travel to Bairnsdale.
1993		Closure of the railway.
		Two rural fire brigades amalgamated.
1994		Closure of Country Roads Board depot.
1996		Veterinary laboratory was privatised in 1994 and closed in '96 with a loss of 40 staff.
		Eastern Energy centre closed
1990s	Restructuring of health services	Closure of the nursing home which had 120 beds in 1996, but this has been countered with construction of new nursing homes in Bairnsdale (60 beds), Paynesville (40 beds), and Lakes Entrance (yet to be constructed), and other facilities such as the Dementia Home, hostels and rehabilitation centre.
		Local community health centre relocated and now less accessible.
		Regionalisation of Health services.
1990s	Economic decline	Three-year drought (95–98) and two major floods ('90 and '98).
		Collapse of commodity prices.
		The collapse of Pyramid Building Society in 1993.
		Youth unemployment—claimed to be the second highest in Victoria.
		The closure of the vegetable manufacturing company, VEGCO in 1993. It has since reopened and now gaining market share.
		Property values have dropped.
		Poker machines are now in Bairnsdale.
1990s	Restructuring of forest industries	Privitisation of the management of public timber resources through the transferring of roles from NRE to the VPC.
		Timber Industry Strategy is driving the industry to more value adding. Contracted wood supplies. It is uncertain how the Asian monetary crisis will affect export markets.
		Acceleration of harvesting practices, low yield coastal areas are seen to being used to maintain quotas. Concerns were expressed about whether the unsustainability of harvesting rates, management regimes in different type forests, the need for value-adding, and the need to weigh up other forests values.
		It is perceived that there is a thrust towards wood chipping. Wood chips were viewed differently by participants. Some thought it was unnecessary, while other saw it as using the waste that is left on the forest floor.
		It was also questioned whether the logs were being graded as residual to maintain chipping targets.
		Forestech 'The Living Resource Centre', a new TAFE with links to Monash and CSIRO opened in '98.
		Fragmenting of bee-keeping areas. East Gippsland apiarists have no association with Sale and Yarram.
		Expression of Interest for a pulp mill at Orbost—project did not proceed.
		There has been a change in focus from domestic green mills to kiln drying for international markets.

The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community was the economic downturn and the changes to the 'bush'.

How did the community respond to the economic downturn?

The participants described how Bairnsdale was suffering from the cumulative effects of the drought, agricultural downturn, and the rationalisation of government departments and utilities.

As the town is dependent on the agriculture the downturn in the sector has depressed the town's economy. The downsizing of Local Government and government departments and depots has had a similar effect, flowing onto the worker's families and the township, with a lower demand for services. Some people moved out of the area; others stayed but were unemployed. Participants mentioned that some people had difficulty selling their house in the depressed market, including the many holiday homeowners who were forced to sell during the recession. Unemployment has risen, and there are now forty claims for emergency relief a week whereas five years ago there was only five claims.

This has impacted on the retail trade, with several shops closing, services contracting, and some items no longer stocked locally. Some people now go to Melbourne for bulk purchases, because of availability and cheaper prices, and for specialist services.

Retirees are moving into Bairnsdale and district and changing the local demography. The participants felt that, although the retirees are on a low fixed income and unable to significantly boost the local economy, they do generate a demand for local services.

Along with retirees, a variety of families are attracted to Paynesville, just south of Bairnsdale, for the lifestyle. Some participants felt that the new expensive housing in Paynesville highlights a growing polarisation in the Shire between the 'haves' and the 'have nots'. Some families have moved to Paynesville after schools have closed in other areas, because the school has a good reputation. The Paynesville school has grown significantly in the last five years.

How did the community respond to the changes in the 'bush'?

In 1989, there were 27 mills in East Gippsland from Provenance Ponds to the border. Changes to more efficient harvesting practices and high-tech machinery, have resulted in a loss of jobs, as less people are required to operate the equipment. There was a loss of small mills because their capital base has been insufficient to get into value-adding. The declining number of timber workers has also meant that it is harder to find people to resource fire brigades, as these were the traditional volunteers.

Clearing of private land is adding pressure on the native forests to maintain biodiversity and habitats. Participants felt agricultural land is being converted into plantations for mainly wood chipping.

Some participants felt that since the Timber Industry Strategy there has been an increase in planning, better supervision and more professional forest management practices. An increased range of forest products are being produced which are generating newer markets. Importantly, there has been a shift towards 'feature grade' timbers which have greater value.

Some participants expressed scepticism about the industry's performance now that it is self-regulating. They felt that there had been a loss of diversity, and questioned the quality of natural forest regeneration.

The apiarists in the workshop stated that the sixty regular apiarists in the region generate $1.25 million locally and $2 million in exports per year. They believe that regeneration from a harvested area produces less mixed species. Specifically, there is an increase in Silvertop regrowth, which is less compatible with bees and affecting honey production.

How do you feel about Bairnsdale?

The participants said that Bairnsdale was 'the best place in Australia' and offered a safe, great lifestyle, and wonderful natural features. However, the participants felt 'a bit forgotten and frustrated'.

The participants felt that Bairnsdale had problems because of a reduction in services, and a lack of a broad economic base. There was also a concern about youth employment and drug usage. Although the services for the elderly are good, they are less so for youth, with fewer emergency, crisis and psychiatric services.

What are your visions for Bairnsdale

One vision related to increased sustainable employment for the future generations through a broad economic base.

There was concern that the push for tourism was causing environmental problems, including blue-green algae, declining water quality and catchment management problems. Increasing sedimentation has also caused a reduction in fish stocks. The participants outlined a need for proper Integrated Catchment Management and future development to consider environmental issues.

Some participants wanted to see a greater regard for biodiversity. Landcare have a vision to plant 100 000 trees annually, free of charge, on public land.

Better transportation was another vision of the participants, including a 'Very Fast Train', a port at Barry Beach and an international standard airport (the proposed Horse Hair Plain Airport or the closure of the RAAF base may provide suitable facilities). Equally, they aspired for improved road networks to bring Melbourne closer, and better public transport for outlying communities and for older disabled residents who need to go to Melbourne for medical care. Ongoing access to Helimed, the emergency medical helicopter, was also seen as vital to the community.

Some participants wanted to see a recognition of Bairnsdale's competitive sustainable advantages, including a skilled workforce, value-added forest resources education centre, long-term and overseas investment, more private plantations, sustainable yields, and the maintenance of diversity.

Given the difficult times the community had faced, a number of participants talked of the need for a more positive outlook, foster community spirit and rely on 'ourselves to solve the problems'.

6.7 Sale case study area

Sale is the largest centre for retail, commerce, administrative, and human services, including education, within the Wellington Shire. Sale also has a large regional arts centre. Located at the junction of the South Gippsland and Princes Highway, 210 km from Melbourne, it is situated on the Thomson River at the head of the Gippsland Lakes.

6.7.1 History

Archibald McIntosh, the first white settler, established a forge, store and butchers shop in the early 1840s. It continued to grow with a punt across the Latrobe River, a police camp, a school, a church, and even a racecourse being built before the end of the decade. Initially the vast swamp south of Warragul and Moe hindered access to Melbourne over land, so a coach service to Port Albert, which connected the steamer service, was commenced in 1859.

In 1859 Malcolm Campbell brought the first schooner across the sand bar at Lakes Entrance, opening the lakes to sea traffic and gaining access to the Port of Sale via the Latrobe River and the canal. The town prospered in the 1860s as a supply centre serving the gold fields in central Gippsland. By the end of the 1880s Sale was also an important port with sixty ships running between Sale and Melbourne, despite the fact there was a rail link to Melbourne from 1879. The steamer traffic continued until the 1930s when road transport took over. The Swingbridge, which was built to enable boats to come to the Port of Sale is still there.

In the 1890s the gold rush ended, however, Sale continued to survive by servicing the needs of the surrounding rural community.

After the First World War, construction of the Glenmaggie Weir and the development of the Macalister Irrigation Scheme saw the growth of the dairy industry and renewed prosperity. This was followed by the depression and then the outbreak of the Second World War.

A RAAF base was established in Fulham in 1939 and in East Sale in 1943, bringing into the town many servicemen and their families. The RAAF Base at East Sale has continued to be an important presence in the town.

The discovery of oil in Bass Strait in the mid 1960s, and the establishment of the Esso-BHP headquarters in Sale lead to renewed prosperity, and a significant expansion of the population housing, the retail centre and facilities.

However in the early 1990s, Sale suffered a number of major losses: the Esso headquarters moved out of Sale; the demise of the National Safety Council; the

downsizing of the RAAF base; and the restructuring of the State Electricity Commission.

6.7.2 Population characteristics

Sale had a population of 13 366 in 1996 at the time of the census. It has a relatively low number of people over 60 years old (15 per cent), and a relatively high number of people under 15 years old (25 per cent).. Nearly 90 per cent of the population was born in Australia, and 47 per cent of the residents were living at a different address five years ago.

The main employment for the township are in the service sectors; retail trade (17 per cent), government administration and defence (12 per cent), health and community service (11 per cent) and education (9 per cent). The median household income was $559 per week, and the unemployment rate was 11 per cent.

6.7.3 Community infrastructure

Sale is a large retail centre providing a wide range of retailing and commercial services and the offices of the Wellington Shire Council. It is the terminus for the Gippsland rail line.

Sale is well provided for with regard to health facilities, a regional hospital, Community health services, doctors and a nursing home. It also has several primary schools, and secondary colleges, a TAFE College, an Adult Community Education Centre, and a Retail and Business Training Centre.

The economy of the township also depends on the:

- East Sale RAAF base, a major training facility for the defence forces. The base employs approximately 800 RAAF and 50 civilian personnel and is an important economic stimulus for the city, generating demand for services, and employment;
- oil and gas industry in Bass Strait;
- Fulham Correctional Centre, located to the west of Sale, is a 600 bed male prison with minimum and medium security classification.

A number of new tourism initiatives in Sale are proposed including the redevelopment of the historic Port of Sale, and a Wetlands Interpretative Centre.

Figure 6.6 Forest use and values identified by Sale workshop participants

6.7.4 Sale community workshop

A workshop was held on the 1 October 1998. A number of local people from Sale were unable to attend, due to an explosion at the Esso Gas Plant at Longford in the previous week, which deeply affected the local community. As a consequence, the workshop participants were from Sale and the surrounding districts, representing a diverse cross-section of business and community groups. Participants included representatives from the timber industry, Waterwatch, Gippsland Apiarist Association, Tourism, the Prospect and Mining Association, and the Shire Environmental Planner.

The participants at the workshop identified uses and values on the map of the Gippsland RFA region (see Figure 6.6).

What have been some of the significant events in your community in the last ten years?

Date	Event	Significance
1980s	Prosperous economic activities	The construction of major infrastructure—the Thomson Dam, Blue Rock Dam, the gas pipeline, Loy Yang from mid 1970s until late 1980s were boom times. After years of major economic activity it suddenly seemed came to a halt.
		Thomson River Diversions to Melbourne 1986.
1980–1990s	Restructuring of the timber industry	The development of the Timber Industry Strategy as a bipartisan government policy.
		The marked beginning of the use of new technologies in the timber industry.
		Rejection of the Orbost paper pulp mill proposal in 1987–88.
1990s	Loss of significant industries	Closure of Esso's local office (1991).
		Collapse of National Safety Council 1991.
		Cutback of RAAF base in 1993–94, and the sale of houses. The RAAF base now contracts out some work, which has lead to some local employment.
		Restructuring of the State Electricity Commission in 1993.
		Industries, commercial and administration enterprises moving to Traralgon.
	Loss of services	Closure of the Sale to Orbost rail line, and earlier the Maffra line. Replaced with bus services.
		Churchill University has recently rationalised some courses, e.g. visual arts.
		The Sale shopping complex has a detrimental effect on retailing in the out-lying townships.
		Ocean outfall—sewerage problem.
1990s	Restructuring of local government and government agencies	Restructuring of Local Government—the amalgamation of the City of Sale and the Shires of Maffra, Alberton, Avon, and Rosedale.
		Government departmental restructuring e.g. NRE.
		Rationalisation of the health services. New hospital built between Traralgon and Morwell. There is concern the good specialist services may disappear.
1990s	Restricted mining access	Mining in National Parks is being restricted. There are special protection zones to exclude areas from timber extraction and fossicking. Fossickers want to regain access to the minerals in the waterways.
1990s	Natural disasters	Bushfires (January 1998), (September 1998).
		Drought from 1994–98, directly affecting the whole rural area and with significant 'flow on' affects to Sale and the surrounding townships.
		Flood 1990 (most severe), 1995 and 1998.
Sept 1998	The Longford incident	Gas explosion at the Esso plant.
1990s	New facilities	Construction of the new prison at Fulham.
		The educational sector has grown with the construction of the TAFE College at Fulham.
		Planting of Blue Gums around Morwell has improved the visual outlook of the area immensely.
		New fertiliser factories opening up.
		Development and expansion of food industry—Allowrie, Bonlac and Murray Goulburn.
		The construction of a wetland in Sale.

The participants were asked to choose two events to consider in greater detail. The two changes identified as having a major impact on their community were recent natural disasters and the changes in timber management.

How did the community respond to natural disasters?

The participants recounted how the local agricultural industry has faced depressed wool and beef prices, drought and disease in the last few years.

They believe that the downturn in agriculture, the natural disasters and the increase in irrigation costs have reduced the amount of disposable income available to farmers. This has meant that there are fewer funds for activities such as Landcare and pest control. The limited tree planting efforts have been affected by the drought. Honey production has been down for the last 3–4 years. The sheep disease Ovine Johnes is also impacting on the Maffra and Sale area. All these events have had a significant effect on Sale and the surrounding towns.

The participants believed that the water flows down the Thomson River had been greatly diminished and this had increased the salinity in Lake Wellington with a tenfold increase in salt levels this year. On top of this they believed that blue-green algae outbreaks and carp have cost an estimated $25 million in lost tourism in the lakes area last summer. A strategy has been produced by the EPA and NRE to reduce the run-off from the irrigation to control blue-green algae outbreaks by the year 2004.

Up to the 1990s Sale had been a prosperous town with plenty of employment prospects, but now many industries have left the region and jobs have gone, producing high unemployment. However, the participants felt that the community pulled together to look after itself.

How did the community respond to changing timber management practices?

Some of the participants were critical of newer harvesting technology and clear felling techniques. They are perceived by some to result in severe soil disturbance and reduce the diversity of species regenerating. As a consequence, it was felt that the use of forests has shifted towards timber production in contrast to having mixed species forests which are valued by many different users, including apiarists.

Some felt that logging was occurring beyond sustainability and questioned how NRE measured yield. While others felt there were ‘too many would-be foresters’ and that 80 per cent of the Ash still standing is 80 years old.

A participant from NSTI pointed out that the company employs 130 people. The company injects $15 million in income into Heyfield and surrounding community, plus additional income into Swifts Creek. Although less timber is coming out, more jobs are being created. Heyfield is regarded as a success with value-adding and

efficient operations. All mill residue is either chipped or given to the Lions Club for sale.

How do you feel about Sale?

The participants felt positive about Sale and described it as ‘relaxed, without pressures’, a good place to bring up children with a good climate.

They felt Sale ‘has it all’, with retailing and community facilities, natural features, proximity to the hills and the sea, and access to water sports, rafting, skiing, good streams, and fishing. Even though people might leave ‘they always come back to Sale’.

The participants felt that Sale makes a disproportionate contribution to the Victorian economy, through water, electricity, oil, gas and agricultural production. Participants also felt over-controlled by all tiers of Government with the various rules and regulation, especially in relation to forest use.

What are your visions for Sale?

In the past the prosperity of the area has been based on natural resources such as timber, agriculture, oil. It was suggested that this had also resulted in a degradation of the environment.

Even though the workshop participants came from different cross-sectional interests from conservation, apiarist, mining, timber, and tourism, they all agreed on the importance of forests catering for multiple uses, and the need to ensure that these multiple uses were on-going. They felt that there was a need to use forest resources in a sustainable way. Some participants felt that the East Gippsland RFA had not met their needs. Their aim is to ensure greater inclusion of their interests in the Gippsland RFA.

The workshop talked about tourist opportunities with the development of world class wetlands and an interpretation centre; the re-development of the Port of Sale with linkages into the Lakes; extension of vegetation corridors; the re-establishment of Red Gum, Iron Bark, and grasslands; and an improved road over the mountains past Dargo. Other opportunities identified was the establishment of a Carp processing industry and the improved use of factory by-products, e.g. the use of saw dust as a clean efficient fuel source for the butter factories or brick kilns.

The social infrastructure, education and health facilities were also recognised as important for the future of Sale. For instance the hospital has recently been expanded and now employs over 500 people, and the local secondary schools have had excellent results. These were seen as examples of where there should be a greater effort to encourage existing local industries to grow.

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