

5. CHAPTER FIVE: REGIONAL SOCIAL PROFILE

5.1 INTRODUCTION

This chapter presents a broad level regional social profile of the TRCs in the SEQ RFA region.

Section 5.2 is a demographic profile of forest dependant areas, section 5.3 looks at service capacity in potentially high impact towns and section 5.4 presents the results of a survey conducted to identify the range of social values associated with forests in the SEQ RFA region.

5.2 DEMOGRAPHICS OF THE REGION

5.2.1 SEQ Region Background

The SEQ region is the highest growth region within Queensland (Planning Information and Forecasting Unit, 1995: v). The region has historically had a higher unemployment rate than Australia as a whole and this trend is predicted to continue as the population increases. It is anticipated that a further 438,000 jobs will be required by the year 2011 if unemployment is not to increase (SEQ Regional Planning Project, *Creating Our Future*, 1994: 6). Almost 70 percent of all employment in the State is located in SEQ. The economy of the region is predominantly service-based, though there is a small manufacturing base in Brisbane and other major urban centres.

The work undertaken for the project report *SE 5.2 Regional Social Profile* provided demographic information about the region on a broad scale using the 44 Local Government Areas as the unit for data presentation and analysis. Census figures used in that report suggest that the growth in population in South East Queensland is likely to be more gradual in the years ahead than in the rapid growth phase of the late 1980s. Overall, the very high growth is mainly in the coastal shires or in places adjacent to the coast. Shires undergoing a population decline are entirely in the northern inland cluster. The findings of SE5.2 showed marked differences across communities of the SEQ region. The divide tended to correspond to geographical location, with inland shires demonstrating lower levels of education, income, youth population, Socio-Economic Index For Advantage (SEIFA) values, house values and population growth. The inland shires also have higher levels of aged people who tend to be more reliant on government support than aged people living on the coast, and higher levels of employment in agricultural, forestry and labouring positions.

The information gained through SE 5.2 provides a regional background to the demographic information presented for the Town Resource Clusters.

5.2.2 Demographic Outline for Town Resource Clusters

Town Resource Clusters (TRC) have been used in this chapter as the unit for presentation of demographic data on the SEQ RFA region. TRCs represent clusters or groupings of towns which, (a) have timber processing industries that obtain their crown hardwood resource from similar sawmill allocation zones, (b) include most of the towns in which employees of timber processing industries located within the TRC were resident, (c) include towns in addition to resident employee towns which were used by employees when obtaining household goods and services.

The TRC is significant in so far as there is a direct relationship between Sawmill Allocation Zones* from which the resource was drawn and towns and communities that are dependent on that resource and which maybe affected if there is a change in the use and management of forests within that allocation zone.

The use of TRCs as the basis for compiling a regional social profile allows for analysis to take place at a social catchment level. TRCs represent the social catchments, based on current forest use, which may potentially be affected by changes in the use and management of forests at the sawmill allocation zone level.

For the purposes of this social profile, TRCs have been compared with an average of the population of the region as a whole as calculated from the 44 Local Government Areas (LGA) in the region. TRCs and LGAs are distinctly different units and show little correlation. The regional averages used in this social profile are calculated using LGAs and are not averages of the TRCs. As such, it is possible that in some graphs, all TRCs will present either above or below the regional average.

The indicators used in this social profile are:

- rates of unemployment
- rates of employment in the crown hardwood dependant timber industry
- levels of education and qualifications
- income
- housing ownership, purchasing, and rental
- age
- Australian born and Aboriginal and Torres Strait Islanders.

These indicators provide key information in determining the extent to which people in an area may be sensitive to change and potential job losses. It has been shown in similar social assessments of forest users (such as in the World Heritage listing of the Wet Tropics area: see SE 5.1 for further detail), that individuals who have a highly specific skills base, such as workers in the timber industry, and no post-secondary qualifications are those most likely to feel the impact of job losses. These people are most likely to have difficulty finding alternative employment. Housing ownership also provides insight into the ability of people to relocate to other areas.

The income indicator suggests general levels of affluence in a community. The indicators relating to home ownership and purchasing may suggest patterns of willingness or reluctance to invest in the local area. This may be a reflection of the general economic climate of an area.

The age indicators show the level to which an area has a higher or lower than average proportion of its population in age groups which usually do not constitute part of the workforce.

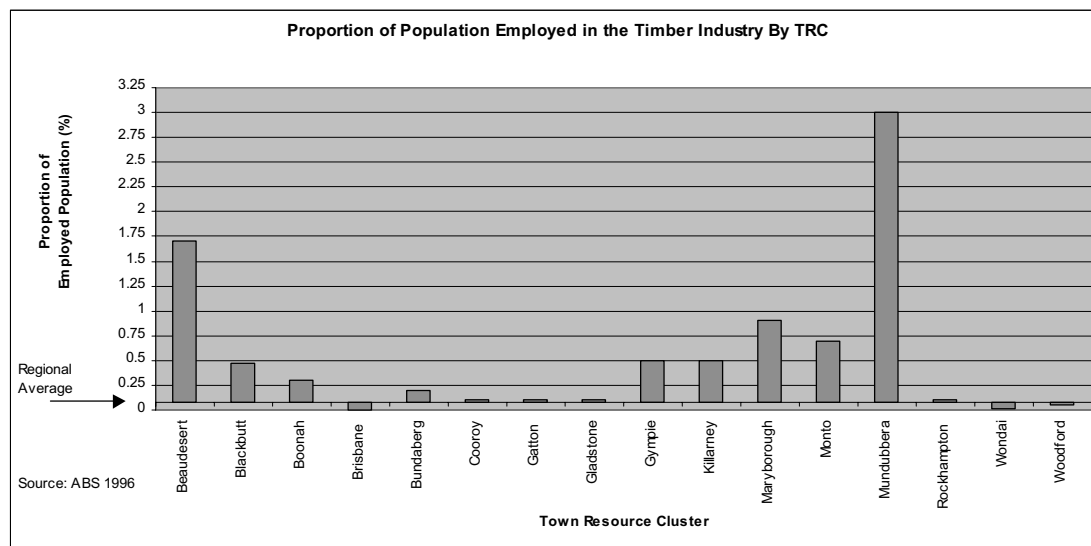
**Sawmill Allocation Zones are the unit for the management and allocation of State Forest resource used by the Department of Primary Industry-Forestry (DPI-F).*

The information in this section has been compiled from data from the 1996 census undertaken by the Australian Bureau of Statistics. Census data is the best and most comprehensive available for the purposes of demographic profiling. However, it must be noted that statistical data of this kind is never completely accurate. For this reason, information in this section should be taken as more indicative than absolute. Regional averages used in the graphs below are the mean scores from the 44 Local Government Areas that constitute the SEQ RFA area analysed in Project SE 5.2.

5.2.3 Employment

As discussed in Chapter 3, employment in the timber industry has been in decline in recent decades. Shown in Figure 5.1 is the proportion of the SEQ population employed in the timber industry. The timber industry in this context refers to hardwood timber processing industries in SEQ which have a crown dependence. Key employment areas are Munduberra, Beaudesert, Monto and Maryborough where over 0.5 percent of the employed population work in the timber industry. Although this represents a small percentage of the total employed population, the actual numbers of employees in the timber industry in some TRCs is still significant.

FIGURE 5.1 PROPORTION OF POPULATION EMPLOYED IN THE TIMBER INDUSTRY BY TRC

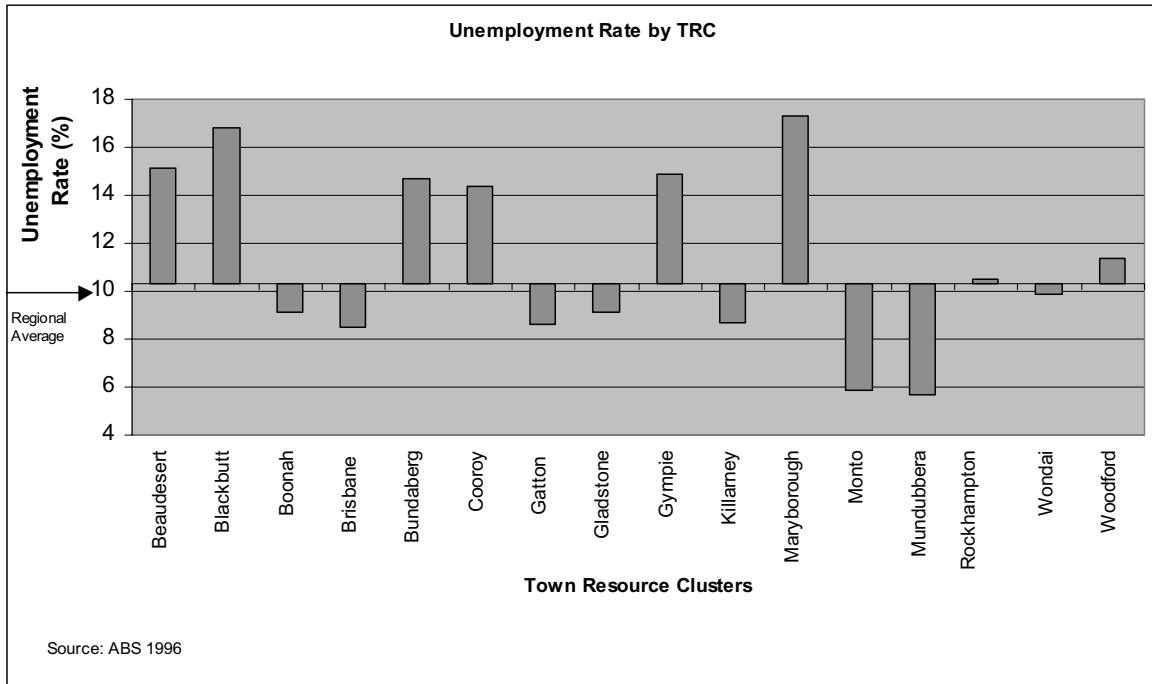


5.2.4 Unemployment

Unemployment in Queensland is higher than the national average. In July, 1998, the seasonally adjusted unemployment rate was 8.3 percent nationally and 9.1 percent in Queensland. Unemployment is still higher than the regional average in seven of the TRC's including Maryborough which has the greatest number of timber employees. Monto and Munduberra on the other hand have a significantly lower than average unemployment rate.

Figure 5.2 highlights the higher than average unemployment rate in TRCs in the SEQ RFA region. Maryborough, Beaudesert, Blackbutt, Bundaberg, Cooroy, Woodford, and Gympie TRC areas all have rates of unemployment above 10 percent.

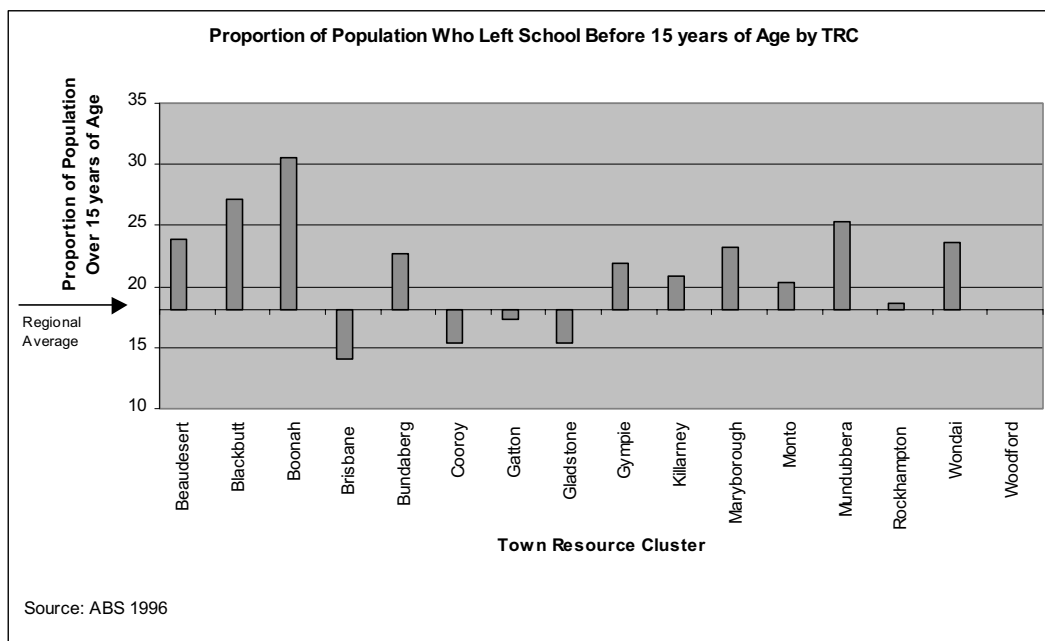
FIGURE 5.2 UNEMPLOYMENT BY TRC



5.2.5 Educational Background

All TRCs, except for those which take in major urban centres with tertiary education facilities, have a higher proportion of their populations who have left school before 15 years of age than the regional average. This is illustrated in Figure 5.3.

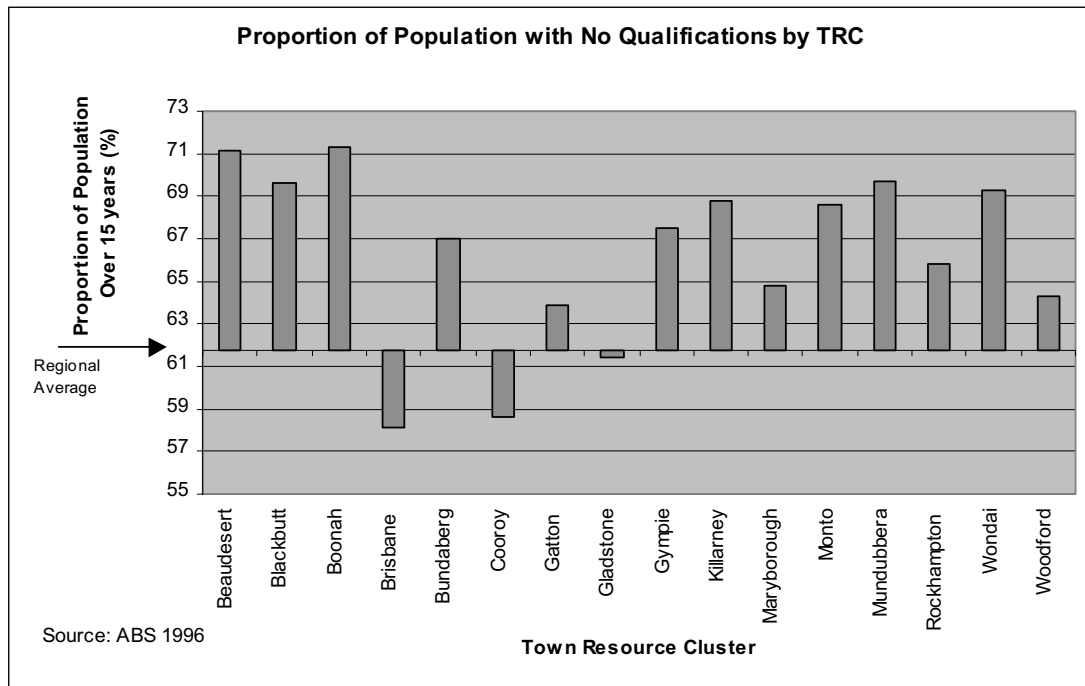
FIGURE 5.3 PROPORTION OF POPULATION WHO LEFT SCHOOL BEFORE 15 YEARS OF AGE BY TRC



5.2.6 Proportion of Population with No Post-Secondary Qualifications By TRC

The category of No Qualifications refers to those people who have attained no further formal qualification after leaving school. The figures deal with the population over 15 years of age, and as such, include some people who are still attending school or university/college. The SEQ region has a high proportion of its population over 15 years of age who have no qualifications as shown in Figure 5.4. The proportion of people with no qualifications is highest in areas outside of major urban centres.

FIGURE 5.4 PROPORTION OF POPULATION WITH NO POST-SECONDARY QUALIFICATIONS BY TRC



5.2.7 Summary of Employment, Unemployment, Education and Qualifications

The SEQ region has a higher rate of unemployment than the national average. Many of the Town Resource Clusters have unemployment rates significantly higher than the regional average. In addition, areas outside the major urban centres have a higher percentage of their population who have left school before 15 years of age and/or have no post-secondary qualifications. These factors combined contribute to a scenario wherein timber industry employees would have comparative difficulty finding alternative employment, without significant retraining.

5.2.8 Age

Two age categories presented in figure 5.5 and 5.6 have been included in this demographic profile of those aged 60 and over and those younger than 14 years. These two categories have been included because of the insight they provide as to whether or not an area has a population which is ageing or youthful. These age demographics indicate the level to which an area has a higher or lower than average proportion of its population in age groups which usually do not constitute part of the workforce. Areas which have lower than average proportions of their populations in non-workforce age categories have lower proportions of their population dependent on those in the workforce.

The TRCs which have ageing populations, and hence, perhaps problems with having an available workforce to depend upon in the future include Maryborough, Blackbutt, Bundaberg, Rockhampton, Mundubbera, Woodford and Cooroy.

The TRCs in the region which have both a higher than average proportion of young people and a higher than average proportion of older people in their population are Gympie, Beaudesert, Boonah, Killarney and Wondai. Monto and Gladstone TRCs have relatively youthful populations and Brisbane and Gatton both have relatively low proportions of their populations in non workforce age groups.

FIGURE 5.5 PROPORTION OF POPULATION AGED BETWEEN 0-14 YEARS BY TRC

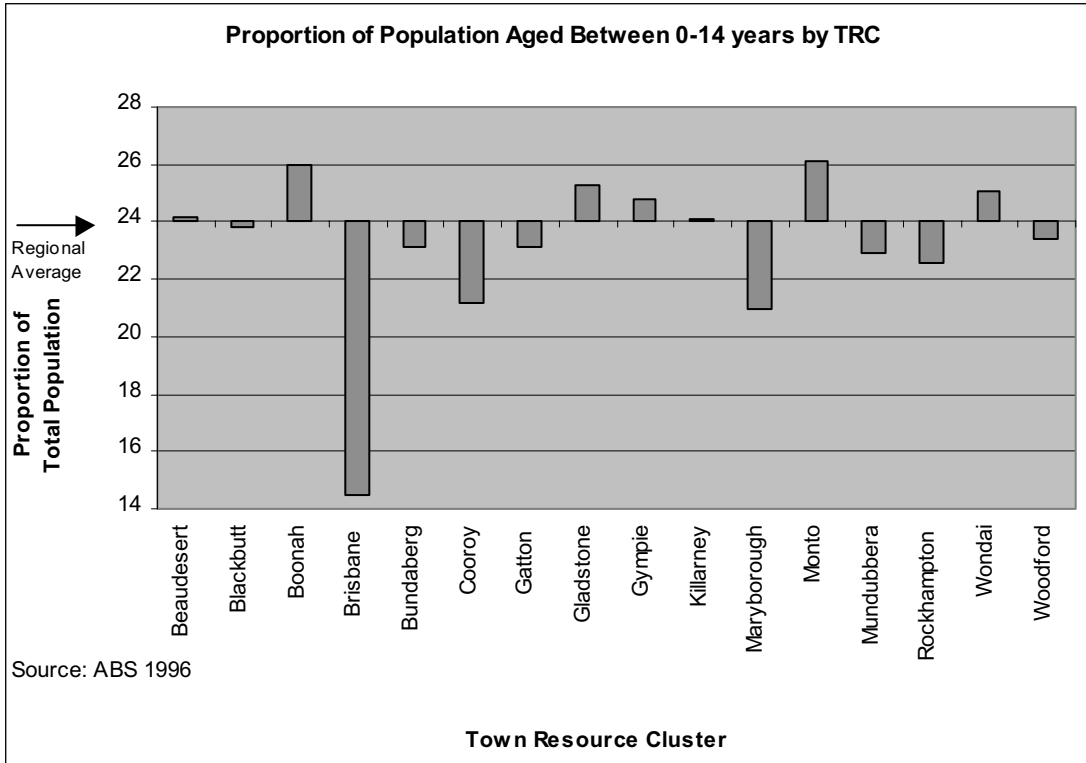
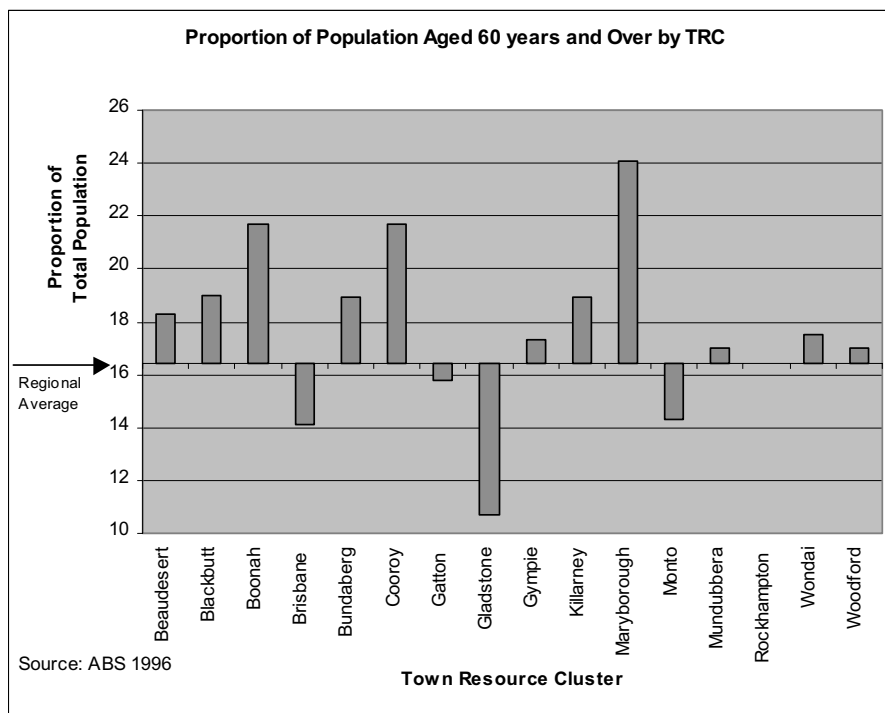


FIGURE 5.6 PROPORTION OF POPULATION AGED OVER 60 YEARS BY TRC



5.2.9 Income of the population

Figure 5.5 shows that there is a distinct pattern of income distribution in the region. High income earners are concentrated in Brisbane and Gladstone. Most of the other TRCs have significantly lower than average proportions of their population earning over \$1000/week per household. In contrast, these areas have a far higher proportion of their population in low income earning categories.

FIGURE 5.7 PROPORTION OF HOUSEHOLDS WITH WEEKLY INCOME BETWEEN \$0 - \$499 BY TRC

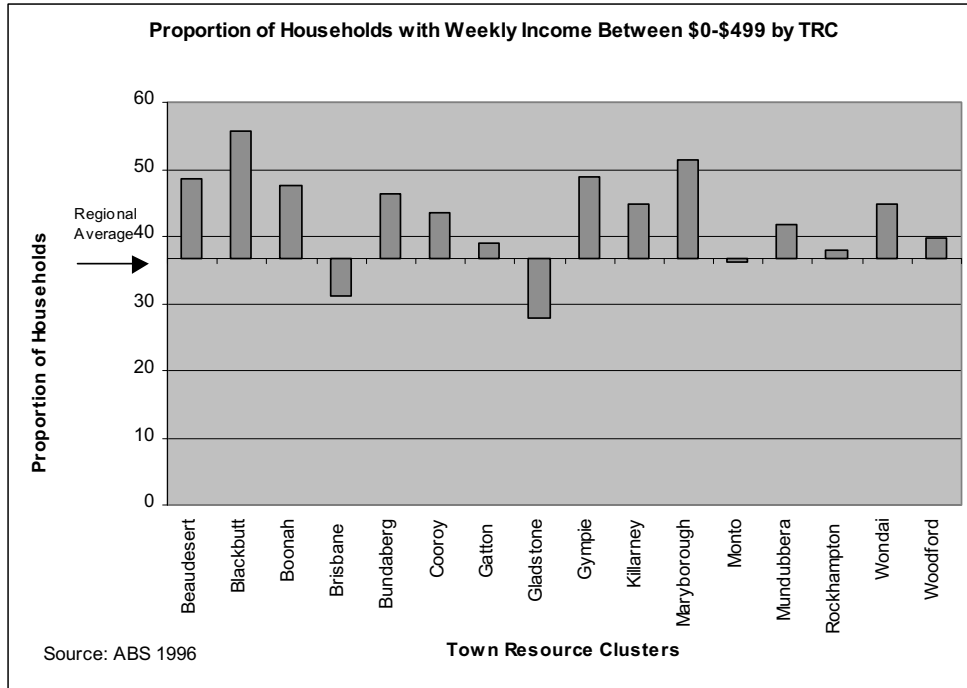
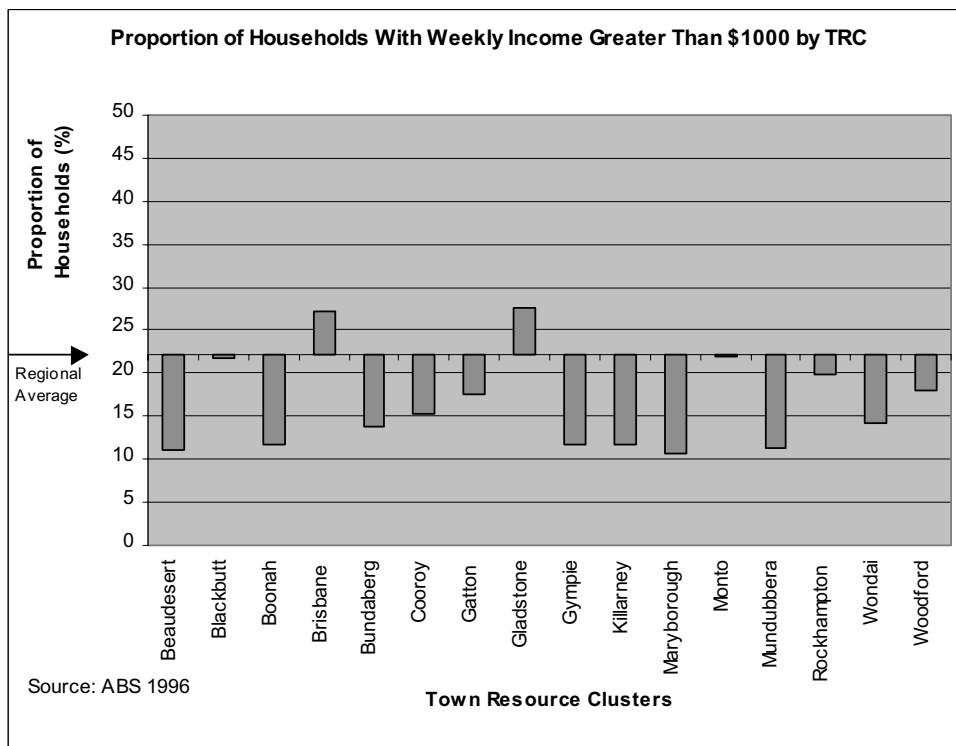


FIGURE 5.8 PROPORTION OF HOUSEHOLDS WITH WEEKLY INCOME GREATER THAN \$1000 BY TRC



5.2.10 Housing ownership or rental

Figures 5.9, 5.10 and 5.11 which follow, illustrate the pattern of home ownership in TRCs. The proportion of fully owned private dwellings is higher than the regional average in rural centres such as Blackbutt, Boonah, Bundaberg, Gympie, Killarney, Maryborough and Wondai. However, the number of dwellings being purchased outside of urban areas is below the regional average and the number of rental dwellings in these areas is generally above the regional average.

FIGURE 5.9 PROPORTION OF FULLY OWNED DWELLINGS BY TRC

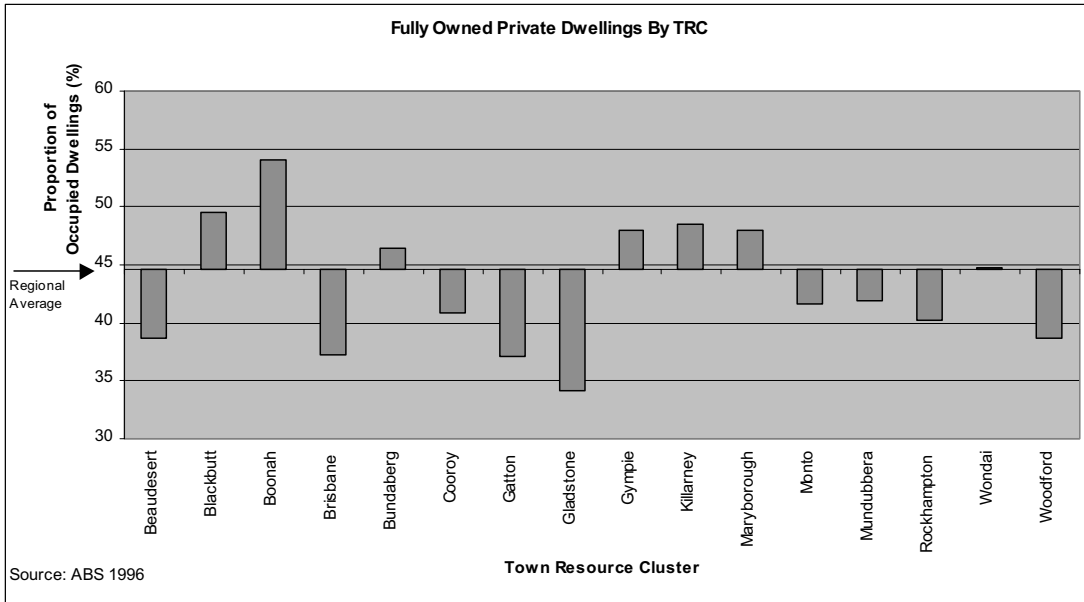


FIGURE 5.10 PROPORTION OF DWELLINGS BEING PURCHASED BY TRC

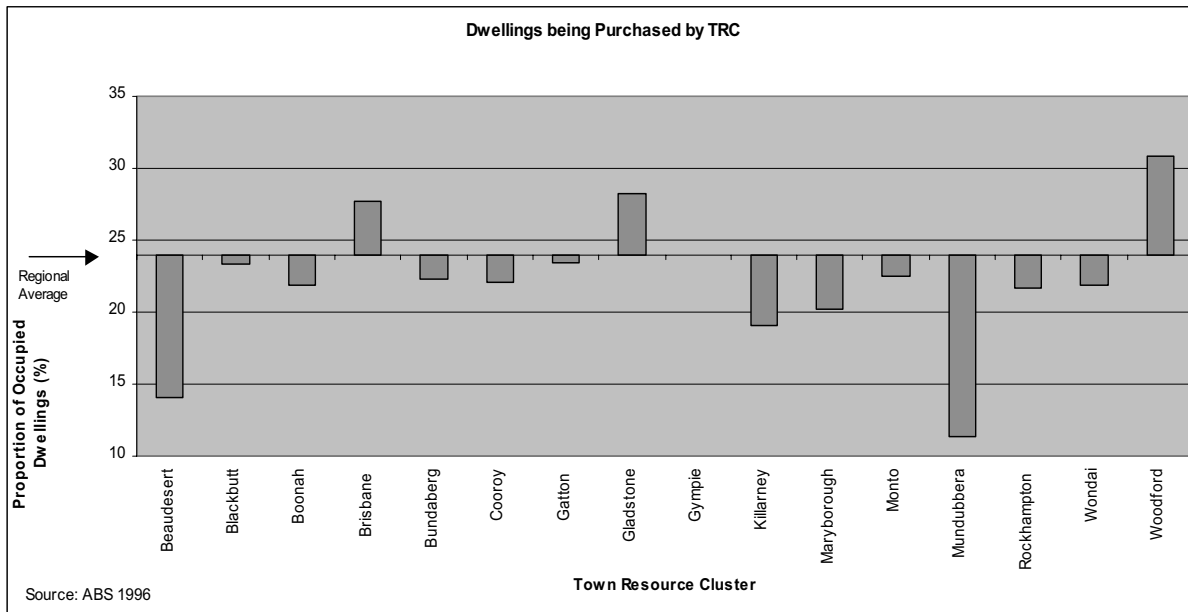
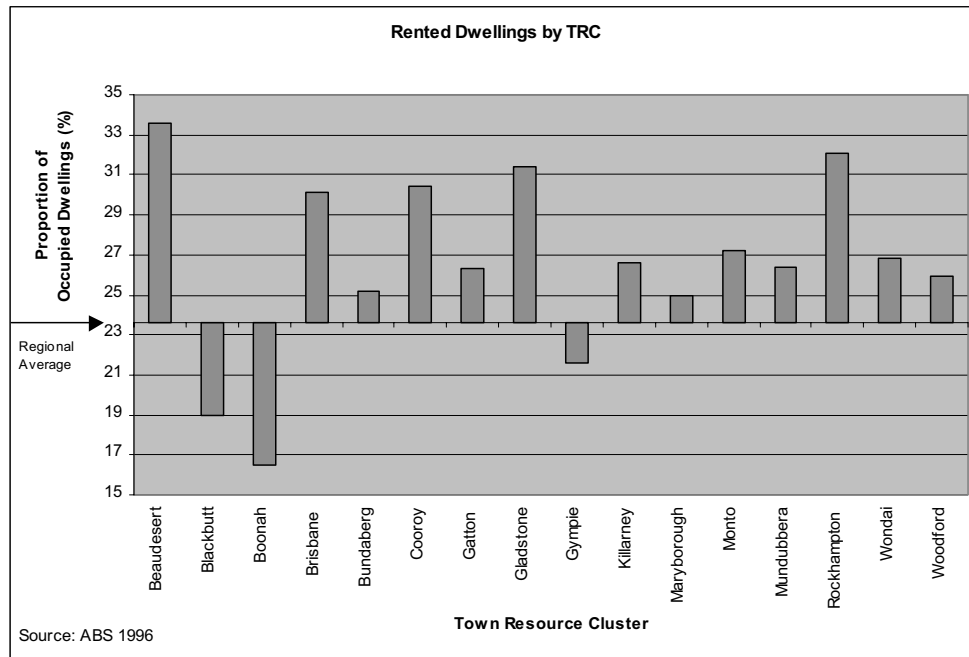


FIGURE 5.11 PROPORTION OF DWELLINGS BEING RENTED BY TRC



5.2.11 Australian born and Aboriginal And Torres Strait Islander People By TRC

The proportion of the population born in Australia across the entire region is high with the regional average being 84.6 percent. Higher levels of ethnic diversity are evident by lower proportions of the population being Australian born in Blackbutt, Brisbane, Cooroy and Woodford TRCs. With the exception of Blackbutt, these TRCs take in major metropolitan areas on the coast such as Brisbane, Caloundra and Noosa. The high proportions of the population born in Australia in the remaining TRCs would indicate a high level of ethnic homogeneity.

Figures for Aboriginal and Torres Strait Islander people as a proportion of the population are more indicative than exact. This is due, at least partially, to a tendency for Aboriginal people to be reluctant to complete census forms because of historical fears about the negative consequences of identifying as being Aboriginal (see Stolen Generation Reports, etc.). The regional average proportion of the population who identify as being Aboriginal or of Torres Strait Island backgrounds is 3 percent. Whilst most of the TRCs have a lower than average proportion of Aboriginal and Torres Strait Islander people, Mundubbera TRC which includes Eidsvold and Wondai, and takes in the area of Cherbourg and Murgon, have proportions significantly higher than the average.

FIGURE 5.12 PROPORTION OF POPULATION BORN IN AUSTRALIA BY TRC

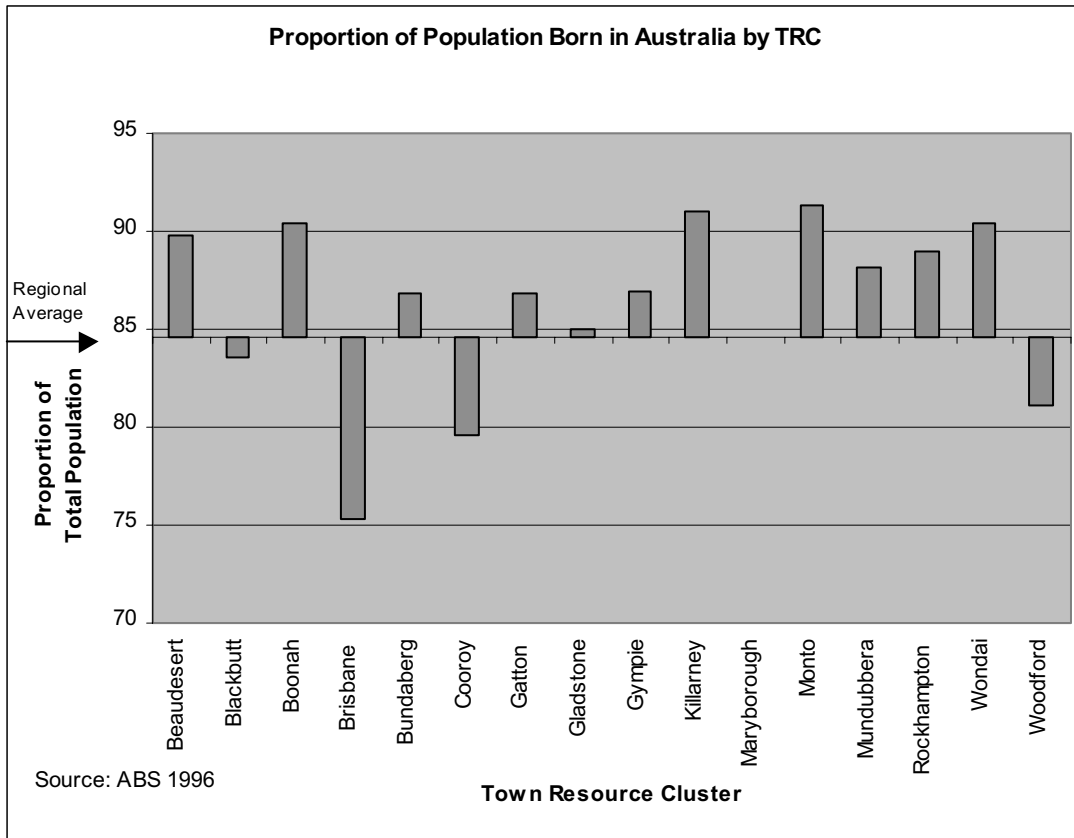
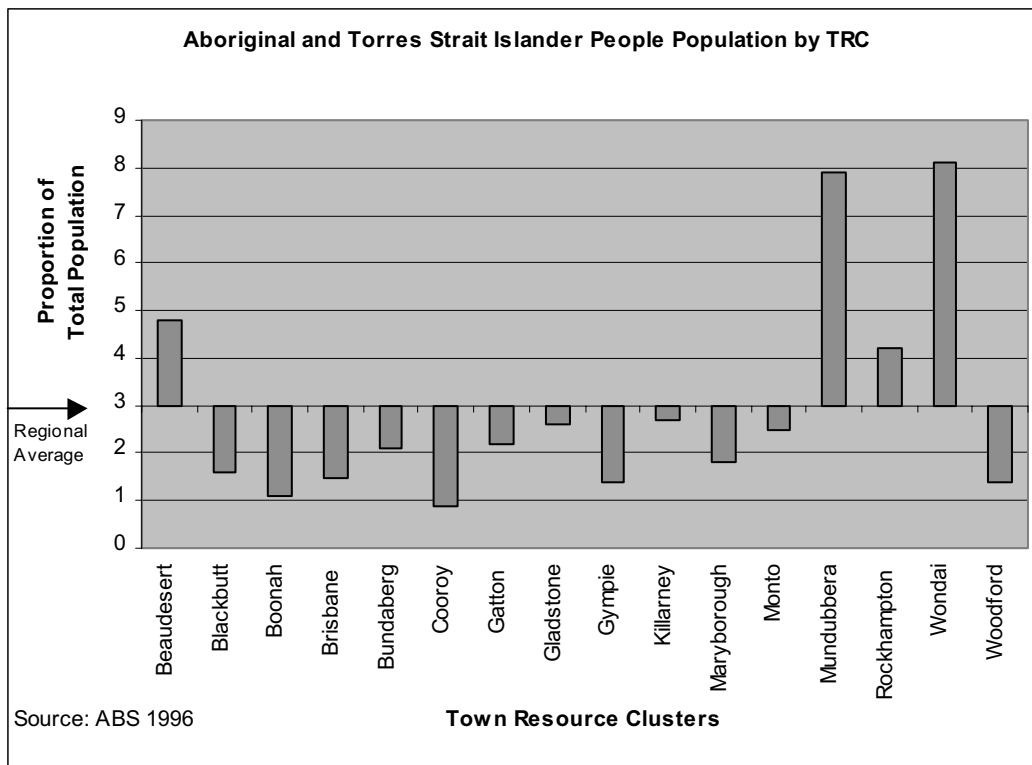


FIGURE 5.13 PROPORTION OF POPULATION WHO ARE ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE BY TRC



5.2.12 Summary of Demographic Data

From the data in this social profile, several patterns have been identified. The selected indicators are useful for identifying those TRCs which are most likely to be sensitive to changes in their local economies, as a result of change in forest use and management. The data shows that several TRCs exhibit the characteristics of a high level of sensitivity. These TRCs have:

- a higher than average proportion of their population who are in low income earning brackets
- high levels of unemployment
- lower than average proportions of houses being purchased
- a higher than average proportion of the population who left school before the age of 15
- a higher than average proportion of the population who have no qualifications
- either ageing populations or populations in which a higher than average proportion are in non-workforce age categories.

TRCs which also have a greater than average proportion of those employed working in the timber industry are sensitive to changes in forest use. TRCs for which this is the case are Gympie, Maryborough, Blackbutt, Beaudesert, Bundaberg, and Rockhampton.

Although Mundubbera, Boonah and Killarney have most of the above-mentioned demographic features, these TRCs have unemployment rates below the regional average. Woodford also shows every feature of sensitivity to change except that there is a relatively high percentage of houses being purchased in the TRC. A relatively high percentage of houses being purchased indicates interest in investment in the area. For the Woodford TRC, this may be due to the TRC including Caboolture (the fastest growing town in Australia) and areas along the coast such as Caloundra.

Gatton is another example of a TRC which has all but two of the features which indicate a high level of sensitivity to change. Gatton TRC has a lower than average proportion of its population in non-workforce age categories and a lower than average proportion of its population who left school before 15 years of age. The regional average for the second of these indicators is, however, reasonably high, so a result slightly less than the average is still not particularly low.

Despite having a higher than average level of employment in the timber industry, and low levels of qualification and education in the population, Monto TRC has an unemployment rate well below the regional average and has a relatively youthful population.

Although Wondai TRC does not have a higher than average proportion of those employed working in the timber industry and has a lower than average level of unemployment, it has, to a moderate extent, all other features demonstrating sensitivity to change.

Cooroy has a higher than average proportion employed in the timber industry, high levels of unemployment and people in low income-brackets and an ageing population, though in general the population is more highly educated and qualified than the regional average.

Gladstone appears to be a relatively affluent TRC with higher proportions in high income earning brackets, higher levels of education and an unemployment rate below the regional average and a comparatively youthful population. Gladstone and Brisbane are the two TRCs which stand out as being comparatively affluent with populations that are better situated to cope with change than the populations of other TRCs.

5.3 SERVICE CAPACITY

5.3.1 Introduction

Service capacity is relevant to the social profile of an area as it provides insight into the available infrastructure which may assist a community to cope with change. Service capacity data also provides baseline information which can be used in impact assessment phases to analyse potential impacts on services. For the purposes of the social profile, service capacity refers to the number of doctors per 1000 people, the capacity of health services and schools and the availability of public housing.

Information relating to service capacity has been compiled at a case study area level (refer to *Project SE 5.3 Social Case Study Areas*). The case study areas were selected through a process which sought to identify those areas which had a level of dependence on State Forest resources. The methods used in the selection process can be found in Appendix A.3. Fifteen case study towns were identified through the work done in SE 5.3. These were:

- Gympie
- Maryborough
- Beaudesert
- Cooroy
- Wondai
- Eidsvold
- Woodford
- Bundamba (Ipswich)
- Linville
- Conondale
- Builyan/ Many Peaks
- Brooweena
- Dingo
- Laidley
- Eudlo

A review of DPI Forestry resource data and consultation with Local Government authorities refined these fifteen case study towns to 12. The three towns of Laidley, Eidsvold and Ipswich were excluded from further analysis due to a relatively low level of State forest use for timber production.

Initial data indicated that Eidsvold was a forest dependent community. Eidsvold is a small rural community with a history and heritage involving the timber industry. The community strongly identifies as a 'timber community', and has an active Forest Protection Society (FPS) branch. Eidsvold is approximately thirty (30) kilometres west of the SEQ RFA region. Eidsvold has two mills, a sawlog and sleeper mill. However, the sawlog mill draws resource from an allocation zone of which only 9 percent is within the SEQ RFA region. Based on the level of dependence on the crown resource in the SEQ region, the SEQ RFA will have comparatively minimal affect on Eidsvold. Eidsvold is therefore a community which is sensitive to changes in the use and management of State forests primarily to the west of the SEQ region.

Data collected at a case study area level have been used in compiling a service capacity profile because it relates to specific towns within TRCs which have potential to be affected by changes resulting from the RFA. Information at this level is useful in providing a general illustration of the level of services available in areas of potential impact. The service capacity information for

case study towns should be regarded only as indicative of the service capacity of the relevant TRCs.

The data presented in this section is either at the Local Government level, at the sub-regional level or at the town level (see Table 5.1). In some instances, particularly with smaller communities, data are only available at the Local Government or sub-regional level.

It is difficult to present all service capacity data at a common level because there are no common boundaries or catchments for service delivery and planning by government agencies (eg., regions for health planning are different from regions for social service planning). Social infrastructure and services are planned regionally, sub-regionally and locally. Health services are provided regionally (major hospitals), sub-regionally (smaller hospitals and Community Health Centres) and locally (doctors).

Information on service capacity was taken from council planning documents, council profiles and interviews with the councils' social and community planning staff for twelve towns, as well as data from Education Queensland and Queensland Health collected by the joint State and Commonwealth social assessment team.

Doctors per 1000 people ranged from 0.38 in the shire of Duarina to 1.76 in Noosa. Many towns indicated a need to continually monitor requirements for medical services as part of their overall commitment to updating infrastructure. Councils were reluctant to acknowledge spare capacity in all services. The LGAs for each town have widely ranging public housing capacity, from a total stock of 0 in Woocoo Shire to 1045 in Maroochy. Maryborough, Wondai and Cooroy have public housing within the town. All towns except Conondale have primary education facilities. Six towns have facilities for secondary education. These were Cooroy, Maryborough, Gympie, Woodford, Wondai, and Beaudesert. Of the 12 towns, Gympie, Maryborough and Cooroy have tertiary education facilities.

TABLE 5.1 THE SOUTH EAST QUEENSLAND REGION

Sub Region	Local Government Areas
Boonah-Warwick	Beaudesert, Boonah, Warwick
Brisbane	Gold Coast, Ipswich, Brisbane, Redland, Redcliffe, Pine Rivers, Logan
North Coast	Caboolture, Caloundra, Maroochy
Kilcoy	Kilcoy
Noosa	Noosa
Kilkivan	Kilkivan
Gympie	Cooloola
Maryborough	Tiaro, Woocoo, Maryborough, Hervey Bay, Biggenden
Kolan-Isis	Kolan, Isis
Bundaberg	Bundaberg, Burnett
Builyan-Gladstone	Calliope, Miriam Vale, Gladstone, Rockhampton
Eidsvold-Monto	Eidsvold, Monto, Perry
Mundubbera-Gayndah	Mundubbera, Gayndah
Murgon-Wondai	Murgon, Wondai
Yarraman-Toowoomba	Crows Nest, Nanango, Kingaroy, Rosalie
Gatton	Gatton, Laidley, Esk
Duarina	Duarina

5.3.2 Service Capacity By Case Study Area

Throughout this section, reference is made to the Local Government Areas, Regions and Subregions in which the case study towns lie. For a full explanation of these, see appendix A.4. Table 5.2 provides a summary of some of the demographic indicators in order to give the reader a feel for the case study towns.



TABLE 5.2 CASE STUDY TOWNS SUMMARY TABLE. SOURCE: ABS 1996

Case Study Town	Total Population	Labour force population (14-60 year olds) as a proportion of the total population	Unemployment Rate	Proximity to regional service centre
Beaudesert	3734	57.9%	15.13%	40km to Southport
Builyan / Many Peaks	150	60.9%	4.05%	80km to Gladstone
Brooweena	228	66.4%	16.67%	45km to Maryborough
Conondale	317	63.7%	13.95%	30km to Nambour
Cooroy	1970	55.0%	11.07%	15km to Noosa
Dingo	140	57.3%	3.95%	45km to Blackwater
Eudlo	588	61.9%	9.4%	15km to Maroochydore
Gympie	10813	55.5%	13.24%	Is a regional centre
Linville	117	63.2%	7.89%	30kms to Toogoolawah
Maryborough	21286	56.4%	13.82%	Is a regional centre
Wondai	1330	53.0%	9.04%	25kms to Kingaroy
Woodford	1621	62.0%	13.97%	25km to Caboolture

▲ **Maryborough**

- City population: 21286
- Local Government Area: Maryborough City Council
- Local Government Area population: 24868
- Maryborough is a regional service centre.

Health

Maryborough has one public and one private hospital. Public health facilities have a capacity of 138 beds. The staff responsible for community development at the council are of the opinion that the current public health facilities are under-resourced, but do not anticipate any changes to the current capacity. There is one private health facility in the town. The Local Government Area (Maryborough) had 1.16 doctors per 1000 people in 1995 and the sub-region (Maryborough) had 1.38 doctors per 1000 people.

Education

Primary and secondary schools for the current population adequately service Maryborough. At present, the two secondary schools have spare capacity and, as such, allow for population increase in these areas without additional secondary schools needing to be built. A site for a third high school is being considered for future population increase outside the area of these two schools. Two additional primary schools have been planned to accommodate forecast urban expansion.

Housing

The Subregion made up of Maryborough, Biggenden, Woocoo, Tiaro and Hervey Bay has a total public housing stock of 817. Of these, 410 are in the city of Maryborough. This is made up of 92

seniors' units, 20 one bedroom houses, 93 two bedroom houses, 173 three bedroom houses, 28 four bedroom houses and four greater than four bedroom houses. The council believes that this service is adequate, however, there is pressure on accommodation for older citizens due to the relatively high rate of elderly people compared with the regional average.

Other services

Aged hostel accommodation was perceived as adequate by the Local Authority, however, waiting lists were longer than satisfactory for nursing homes. Other services for the aged included Meals on Wheels. The Council claims to be having problems securing funding for public transport. This was particularly seen as a problem for the aged. Youth services are minimal and the Council is aiming to employ a youth development officer to address this situation. In the past, youth centres have been created but each time they have folded due to lack of permanent funding. The current 'Mansfield' centre for youth is at risk of going the same way. The same applies to a youth information service which has recently been established. A counselling service is available, but is presently only for females over the age of 16.

▲ Wondai

- Town population: 1330
- Local Government Area: Wondai Shire
- Local Government Area population: 3971
- Proximity to regional service centre- Kingaroy: 25km

Health

There is one public hospital with a capacity of 17 beds. This service has been under-utilised in recent times, however, the Council is confident that the reasons for this no longer apply, and that the hospital will promptly return to full use. In addition to the hospital, there are two health practices, one with a single doctor and one with doctors and additional medical services. There is no private hospital in the shire. The Shire (Wondai) had 0.49 doctors per 1000 people and the subregion (Murgon-Wondai) had 0.78 doctors per 1000 people in 1995.

Education

There are 11 primary schools in the shire, of which one is in the town of Wondai. Secondary education is available to year 10 through the secondary department of the Wondai State School. Whilst the Council acknowledges the school is unlikely to increase enrolments, it believes the school is not at risk of closure. The council is unaware of any plans to build new schools in the town of Wondai.

Housing

Mostly in the town of Wondai, the Shire has a total public housing stock of 19 out of the Sub-region total of 43. These are made up of 6 two bedroom cottages and 13 three bedroom cottages. No seniors' units were recorded in 1997.

Other Services

The Council described two types of services for the aged. It claims to support approximately 20 units for elderly people who are able to care for themselves. In addition, there are facilities attached to the hospital for the aged who are no longer able to care for themselves. What the Council sees as lacking is a level in between, such as hostels or nursing homes, where some care is provided, but the patients maintain a degree of independence. The nearest such facility is at Kingaroy, some 25km from the town of Wondai. A community health worker has recently been employed, visiting different parts of the community to increase awareness of health issues in Wondai. There are no services for youth.

▲ **Eudlo**

- Town population: 588
- Local Government Area: Maroochy Shire
- Local Government Area population: 111798
- Proximity to regional service centre- Maroochydhore: 15km

Health

The town of Eudlo has no medical services within the town. Some medical services are available at the nearby town of Palmwoods. The nearest public hospital is Maroochydhore. The combined public health capacity of Maroochy Shire is 301 beds. In addition, there are three private health institutions in the Maroochy Shire. The LGA (Maroochy) has 1.44 doctors per 1000 people, and the sub-region (North Coast) had 1.11 doctors per 1000 people in 1995.

Education

There is a State school in Eudlo providing primary education. Currently the Council perceives that enrolments are decreasing, but that the school is not at risk from closing. The nearest secondary school is at Nambour.

Housing

Part of the vision of Eudlo is to have a sufficient supply of affordable housing in a style which maintains the amenity of the town (Maroochy Shire Strategic Plan 1996 p 3). The Council was unaware of public housing in the town. For the LGA of Maroochy a total of 1045 public housing dwellings existed in 1997, made up of 312 senior's units, 145 one bedroom houses, 280 two bedroom houses, 256 three bedroom houses, 43 four bedroom houses and nine houses with more than four bedrooms.

Other Services

The town has a Community Hall which is used for public meetings and social/recreational events. The town is serviced by a mobile library and there is a youth group aimed at 'keeping the kids in the town'. Childcare is available at the neighbouring town of Woombye.

▲ **Gympie**

- Town population: 10813
- Local Government Area: Cooloola Shire
- Local Government Area population: 31862
- Gympie is a regional service centre.

Health

The town has a public hospital with a capacity of 128 beds. It is the only public hospital in the Cooloola Shire. There are two private health facilities. There was no indication from the Council as to whether these facilities are adequate or not. In 1995 Gympie had 0.87 doctors per 1000 people. The sub-region (North Coast) had 1.11 doctors per 1000 people.

Education

Gympie has a campus of the Cooloola-Sunshine Institute of TAFE. There is also an open learning centre. There are several primary schools. Secondary education is available at two State High Schools and two private high schools. The council did not indicate whether current capacity was sufficient or not. No mention of new schools was found in planning documents for Cooloola Shire.

Housing

The Gympie Sub-region has a total of 562 public housing properties, of which 264 are within the LGA (Cooloola). These are made up of 34 senior's units, 12 one bedroom houses, 65 two bedroom houses, 141 three bedroom houses, 10 four bedroom houses and two greater than four bedroom houses.

Other Services

Gympie is serviced by Meals on Wheels and the Red Cross. The shire is considering employing a community development officer. Services for the aged in Gympie include hostels, nursing homes and a retirement centre. The Council holds the opinion that the regionalisation of Federal services has resulted in reduced representation, particularly for labour market programs. For example, the relocation of the office of DEETYA out of the shire has meant that youth employment schemes have been more difficult to access for the people of Gympie.

▲ **Beaudesert**

- Town population: 3734
- Local Government Area: Beaudesert Shire
- Local Government Area population: 46708
- Proximity to regional service centre- Southport: 40km

Health

There is one public hospital in Beaudesert with a capacity of 38 beds. There are plans to rebuild it in order to upgrade its overall facilities. The council expects there will be no increase or decrease to the capacity of the rebuilt hospital. There are two private hospitals in the subregion (Boonah-Warwick). The LGA had 0.83 doctors per 1000 people in 1995, and the subregion had 0.63.

Education

The town itself has one State primary school and one State high school. These are currently considered to provide adequate services. A new primary school has recently been constructed in the Flagstone estate some 30 km north of the town. This northern part of the shire is undergoing considerable growth and a new high school is envisaged for this area in the future. Other growing parts of the Shire include Tambourine Mountain which is in the process of constructing a new high school. Beaudesert has two international high schools.

Housing

The council is not in a position to encourage private housing through incentive schemes. The total public housing stock for the Shire is 123, which is made up of 12 seniors' units, eight one bedroom houses, 17 two bedroom houses, 80 three bedroom houses and six four bedroom houses. The total public housing stock for the subregion is 234.

Other Services

Other services are very limited for Beaudesert. Public transport is a problem, and there were no youth services. There is an aged persons' home and aged persons' retirement village.

▲ **Conondale**

- Town population: 317
- Local Government Area: Caloundra Shire
- Local Government Area population: 66336
- Proximity to service centre- Nambour: 30km

Health

There are no hospital facilities in Conondale. The nearest hospital is at Maroochydore. The Caloundra Shire Council which is responsible for Conondale, has 2 public health institutions with a combined capacity of 53 beds. Caloundra Shire has 1.21 doctors per 1000 people and the North Coast sub-region has 1.11 doctors per 1000 people.

Education

There are no schools in the town. Primary and secondary education are available in the neighbouring town of Maleny. The distance is approximately 20km and there is no public transport.

Housing

The Caloundra LGA has a public housing stock of 791 made up of 195 seniors' units, 82 one bedroom houses, 17 two bedroom houses, 80 three bedroom houses, 39 four bedroom houses and four greater than four bedroom houses. The Council is unaware of any of these being within the township of Conondale.

Other Services

No other services were found for the town. There is an information centre at Maleny which may offer some service to the people of Conondale.

▲ Woodford

- Town population: 1621
- Local Government Area: Caboolture Shire
- Local Government Area population: 98859
- Proximity to regional service centre- Caboolture: 25km

Health

The town has a doctor and an ambulance station. The nearest hospital is at Caboolture which has a capacity of 120 beds. Caboolture shire had 1.38 doctors per 1000 people and the North Coast sub-region has 1.11 doctors per 1000 people in 1995.

Education

Primary education is available at Woodford State School. There was no indication whether its capacity needs to increase or decrease. The first three years of secondary education are available at the Woodford State School. For the remainder of secondary studies, the nearest school is Caboolture State High School. Students may also attend Kilcoy SHS which is approximately 25kms away.

Housing

Housing is provided for employees of the Woodford Correctional Centre which is a significant employer in the town. Caboolture Shire has a public housing stock of 1864 made up of 262 seniors' units, 103 one bedroom houses, 226 two bedroom houses, 1120 three bedroom houses, 135 four bedroom houses and 18 greater than four bedroom houses. The Council is unaware of any public housing within Woodford itself.

Other Services

There is a public bus service to Caboolture, which is mainly for school children.

▲ **Builyan/Many Peaks**

- Town population: 150
- Local Government Area: Calliope Shire
- Local Government Area population 13954
- Proximity to regional service centre- Gladstone: 80 km

Health

There is a public health service based in an old hospital building. Though small, this service is perceived as adequate. It is not expected either to expand or decrease in the near future. In 1995 Calliope Shire had 0.6 doctors per 1000 people and the Sub-region (Builyan-Gladstone) had 0.84 doctors per 1000 people.

Education

The community has a small primary school, in which enrolments are low. The capacity is currently adequate. The nearest high school is in Gladstone, which is approximately two hours drive away.

Housing

Most housing in the town is of 'older' cottage style. The LGA has a public housing stock of 49, made up of 10 seniors' units, 8 two bedroom houses, 26 three bedroom houses, four four bedroom houses and one greater than four bedroom house.

Other Services

There are no other services in the community. The council has surveyed the community and surrounding areas for service provision and found no demand for other services. An example of this was to introduce a bus service to bring citizens into Gladstone on a weekly or fortnightly basis. The plan was rejected due to lack of demand.

▲ **Dingo**

- Town population: 140
- Local Government Area: Duaringa Shire
- Local Government Area population: 9311
- Proximity to regional service centre- Blackwater: 45km

Health

There is a clinic which is an annex to the hospital at Blackwater. It is located in a council building. The staff includes a permanent nurse and fortnightly visits from a doctor based in Blackwater. The service is widely used and residents are content with the service. The service has a strong outpatients commitment. Duaringa Shire (and sub-region) had 0.38 doctors per 1000 people in 1995.

Education

Due to an overall decline in the population of the surrounding area, the school has had low enrolments. Current enrolments are approximately 40 students. The staff includes a principal, two teachers, teacher aids and a secretary. The council expects enrolments to increase in the future, and sees no risk of the school closing.

Housing

Housing is provided by the logging industry for sawmill workers. Most housing is single, detached cottage style. There is no public housing in Duaringa Shire.

Other Services

Lifeline runs a rural support service to the region. The service makes regular visits to Dingo. The council is unaware of the need for any other services.

▲ **Linville**

- Town population: 117
- Local Government Area: Esk Shire
- Local Government Area population: 13391
- Proximity to regional service centre- Toogoolawah: 30km

Health

The nearest medical facilities are at Kilcoy hospital. The combined public health facilities of Esk Shire have a capacity of 30 beds. The sub-region of Gatton-Toogoolawah has a total capacity of 75 beds. There are no private hospitals in the sub-region. Esk Shire had 0.62 doctors per 1000 people in 1995, and the sub-region had 0.66 doctors per 1000 people.

Education

The community is serviced by a small primary school. No indication of the capacity of this service was available. The nearest secondary school is Toogoolawah State High School approximately 30 km south of Linville.

Housing

Housing is predominantly detached cottage type dwellings. The Shire of Esk identifies unsafe and illegal dwellings to be a problem in the Shire. The public housing stock for the shire is 19, made up of four seniors' units, seven two bedroom houses, seven three bedroom houses and one four bedroom house. The council indicated that none of these are in Linville.

Other Services

There is a bus which runs a single daily service from the north of the shire to the south of the shire. There is also a weekly bus for residents to do shopping at Ipswich, however this is at risk from folding due to lack of funding. There is one day's respite care per month for the aged. This service is considered inadequate partly due to the fact that nearly half the residents in Linville and the surrounding community are over 55 years old.

▲ **Cooroy**

- Town population: 1970
- Local Government Area: Noosa Shire
- Local Government Area Population: 41171
- Proximity to regional service centre- Noosa: 15km

Health

Cooroy has one private hospital. It is currently being considered for expansion to compete with public hospital facilities in the region. The council is encouraging the development of a medical precinct to provide additional medical services to the town. A public hospital is planned for the nearby town of Noosaville. Noosa Shire had 1.76 doctors per 1000 people and the north coast sub-region had 1.11 doctors per 1000 people in 1995.

Education

The Cooroy State Primary School is currently meeting the needs of the community. Strategic Planning has identified that increased population may necessitate an additional primary school

for Cooroy in the future. A new primary school is planned for Noosaville and the town of Pomona is expected to expand its primary school to include a secondary department.

Housing

The area is undergoing significant pressure from population increase. New houses are restricted in terms of style to retain the character of established parts of the town. In other areas, a variety of housing styles are encouraged by the Council. Public housing is limited, but the council aims to increase public housing in the future. Noosa Shire has a total public housing stock of 296, made up of 76 seniors' units, 10 one bedroom houses, 60 two bedroom houses, 129 three bedroom houses, 20 four bedroom houses and 1 house with more than 4 bedrooms .

Other Services

Aged services include Blue Nursing and a nursing home. There is one youth program for the whole shire. A counselling service for victims of domestic violence is available.

▲ Brooweena (limited data available)

- Town population: 228
- Local Government Area: Woocoo Shire
- Local Government Area population 2902
- Proximity to regional service centre- Maryborough: 45km

Health

The shire of Woocoo has no hospital. Only basic medical services are available to the shire. There were 0.87 doctors per 1000 people in the shire in 1995. This compares to the sub-regional average of 1.38 per 1000 people.

Education

There is no high school in Brooweena.

Housing

There is no public housing recorded in Woocoo Shire.

Other Services

The Shire of Woocoo identified the need to upgrade community halls across the Shire. (Woocoo Shire Council Corporate Plan 1997 - 2002 p 11)

5.3.3 Service Capacity Conclusion

- Doctors per 1000 people ranged from 0.38 in the shire of Duaringa to 1.76 in Noosa. The average doctor ratio for the South East Queensland region was 1.09 doctors per 1000 people.
- Many towns indicated a need to continually monitor needs for medical services as part of their overall commitment to updating infrastructure.
- Councils were reluctant to acknowledge spare capacity in all services.
- The LGA's for each town have widely ranging public housing capacity, from a total stock of 0 in Woocoo Shire to 1045 in Maroochy.
- Maryborough, Wondai, Gympie and Cooroy have public housing within the town.
- All towns except Conondale have primary education facilities.
- Six towns have facilities for secondary education. These were Cooroy, Maryborough, Gympie, Woodford, Wondai, and Beaudesert.
- Of the 12 towns, Gympie, Maryborough and Cooroy have tertiary education facilities.
- There is a general trend of diminishing levels of services being provided to rural and regional areas.



TABLE 5.3 CASE STUDY AREA SERVICE CAPACITY SUMMARY

Town/Service	Health	Education	Housing	Other
Maryborough	1 public hospital - 138 beds; 1 private hospital; 1.16-1.38 doctors per 1000.	Adequate primary and secondary school capacity for current population, with sufficient spare secondary school capacity to allow for some population increase.	817 public dwellings, 410 in town of Maryborough. Mixture of one, two three, four and more bedroom dwellings.	Adequate aged hostel capacity, but inadequate nursing home capacity. Meals on Wheels, minimal youth services, funding commitment for public transport.
Wondai	One 17 bed public hospital. 0.49-0.98 doctors per 1000	11 shire primary schools, one in town. Year 10 high school facility at Wondai State School.	19 public dwellings in town, comprised of mix of 2&3 bedroom dwellings.	20 aged persons' units. Geriatric care facility at hospital. Nearest aged care residential facility at Kingaroy.
Eudlo	Nearest medical service at Palmwoods. Nearest public hospital at Maroochydore.	One State primary school. Nearest secondary school at Nambour.	No public housing in town.	Community hall; mobile library.
Gympie	One 128 bed public hospital. 0.87-1.11 doctors per 1000.	Two State high schools, several primary schools. Campus of Coooloola-Sunshine Institute of TAFE.	562 public dwellings, comprising of mix of aged person's units, one, two, three, four and more than four bedroom dwellings.	Aged care hostels, nursing homes and a retirement centre. Meals on Wheels and Red Cross.
Beaudesert	One 38 bed public hospital. 0.83 doctors per 1000.	One State primary and one State high school. Two international high schools.	123 public dwellings, comprising mix of seniors' units, one, two, three and four bedroom dwellings.	Aged persons' nursing home and retirement village.
Conondale	Nearest hospital at Maroochydore. Shire doctor ratio of 1.21 doctors per 1000.	Nearest schools in Maleny.	No public housing in town.	N/a.
Woodford	Nearest hospital at Caboolture. One doctor and an ambulance station. Shire ration of 1.38 doctors per 1000.	One primary plus one Year 9 high school.	No public housing in town. Some housing provided for employees of correctional centre.	Public bus service to Caboolture, mainly for school children.
Builian/Many Peaks	Public health service in old hospital building. Shire ratio of 0.6 doctors per 1000.	One small primary school. Nearest high school in Gladstone.	49 public dwellings, comprising mix of seniors' units, two, three, four and more than four bedroom dwellings.	No demand.
Dingo	Clinic, staffed by permanent nurse, with fortnightly visit from Blackwater doctor. Shire ratio of 0.28 doctors per 1000.	One small primary school..	Housing provided by logging industry for sawmill workers. No public housing in town or shire.	Regional Lifeline service.
Linville	None in town, with nearest medical facilities at Kilcoy Hospital. Shire ratio of 0.62 doctors per 1000.	One small primary school. Nearest secondary school at Toogoolawah.	No public housing in town.	Some bus connections to neighbouring centres.
Cooroy	One private hospital. Shire ratio of 1.76 doctors per 1000.	One State primary school.	Limited public housing in town.	Blue Nursing Home. One shire youth program. Domestic violence counselling service.
Brooweena	Shire ratio of 0.87 doctors per 1000.	No high school.	No public housing.	N/a.

5.4 SOCIAL VALUES ASSOCIATED WITH FORESTS IN SEQ RFA REGION

The core objective of this study was to identify the social values associated with forested land, held by the population of the South East Queensland RFA region. The study was based on a random sample of 2000 respondents drawn from across 10 regional sectors within the region. The 10 regional sectors included, (i) Beaudesert, (ii) Brisbane, (iii) Builyan, (iv) Bundaberg, (v) Esk, (vi) Gladstone, (vii) Kingaroy, (viii) Maryborough, (ix) North East Coast and (x) the North Coast. The structure of the sampling frame allowed comparisons to be made across each of the 10 sectors, and through proportional weighting of the total sample, inferences could be drawn in relation to the population throughout the SEQ RFA region. Structured telephone interviews were used to assess forest values, the use of State Forests and National Parks and attitudes towards management planning in native forests.

Beliefs associated with forest management concern, which focused primarily on concern with the use and management of native forests, were highest in the North Coast sector and lowest in the Esk, Kingaroy and Builyan sectors. A significant association was also found between the age of respondents and forest management concern, with respondents between 20 and 29 years of age having the highest levels of forest management concern and with levels of forest management concern gradually reducing amongst those respondents over 30 years of age. Forest management concern was high in both households with and without employees in forest and forest related industries, however those respondents who were members of households with no forest industry employees had comparatively higher levels of concern.

The intrinsic value orientation relates to belief statements associated with the inherent non-use value of forests, including their inherent and aesthetic values and the importance of protection and preservation. In the SEQ RFA region, high levels of intrinsic value were found within the population, with these values being relatively higher in the North Coast and North East Coast sectors when compared to other sectors. Although intrinsic values were high in households with and without household members employed in forest-related industries, respondents from households with no forest industry employees had relatively higher levels of intrinsic value than respondents from households with forest industry employees.

The extrinsic value orientation relates beliefs associated with the value of forests for human use and consisted of beliefs associated with the importance of employment over the protection of native forests and the economic value of native forests through timber production. This value orientation was found to be highest in the Builyan and Kingaroy sectors and lowest in the North Coast, Brisbane and Beaudesert sectors. As might be expected, respondents from households with forest industry employees reported relatively higher levels of this value orientation than respondents from households with no forest industry employees.

5.4.1 Value Orientations

Given that the survey was based on telephone interviews with respondents, the most appropriate method for identifying specific value orientations was through the use of belief statements. Fourteen belief statements were used to identify the value orientations of respondents and were based on previous survey research in Tasmania, Victoria and Western Australia and through direct consultations with stakeholders in Queensland.

While the percentage of agreement with each belief statements has been analyzed, it must be recognised that many of the belief statements are related and measure a common underlying factor or value orientation. Inter-correlations across all 14 belief statements indicated three common factors, (i) forest management concern, (ii) intrinsic values or beliefs, (iii) extrinsic use values or beliefs.

The results of the survey show the population within the SEQ RFA region have high levels of concern about the management and use of native forests in Queensland (84 percent), believed that better laws were needed to regulate the use of native forests (88 percent), that protecting native forests would not threaten jobs (76percent) and that the conservation and protection of native forests in Queensland would benefit the Queensland economy (87 percent). As might be expected given the high levels of extrinsic and intrinsic value associated with forests, 65 percent of the population also report that sometimes their beliefs about the need for employment and the need to protect native forests were in conflict.

5.4.2 Forest Management Concern

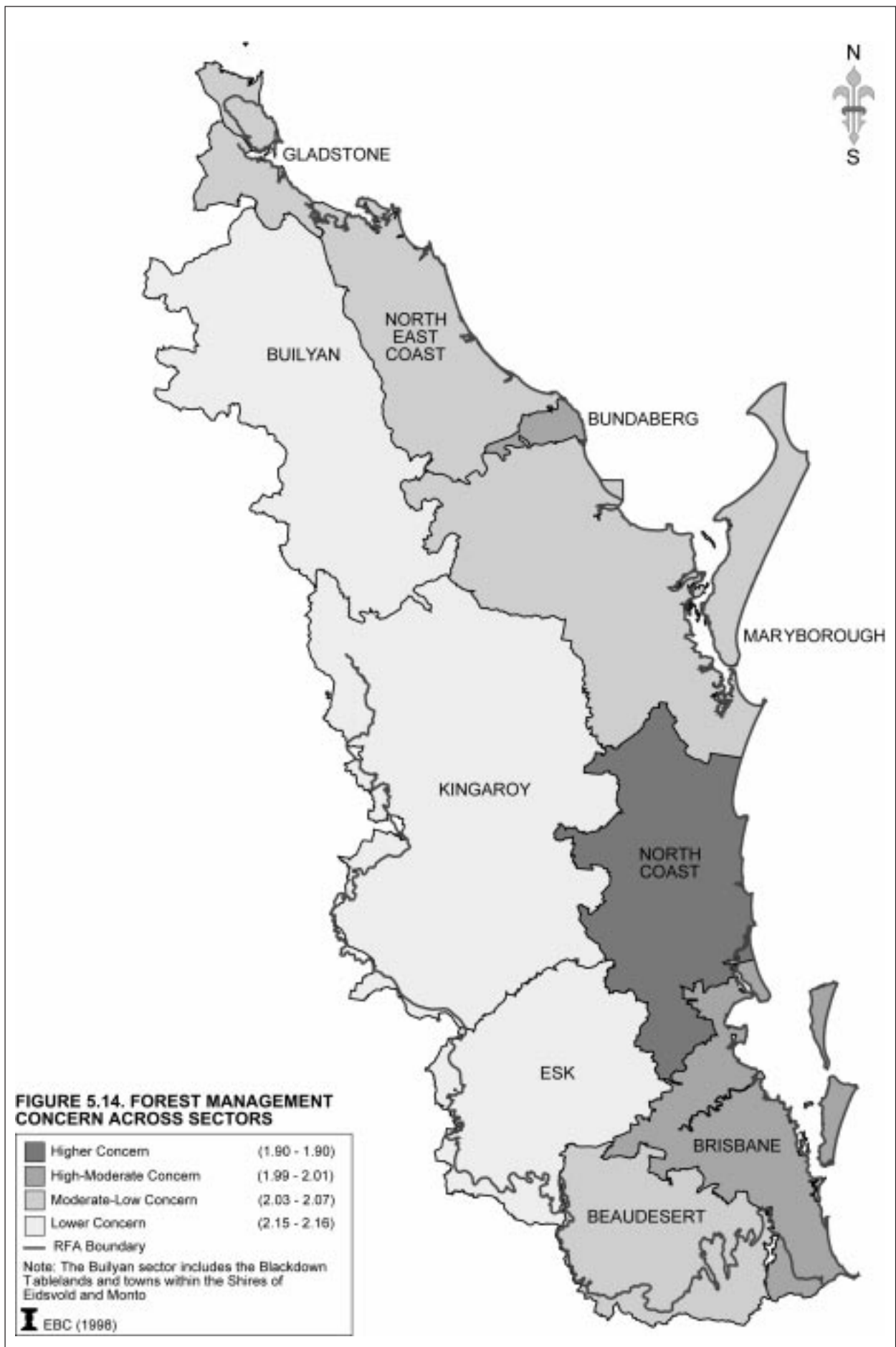
Forest management concern was the most reliable factor and accounted for the highest percentage of variation amongst the 14 belief statements. In the context of this research, and on the basis of the belief statements which are used to form this scale, forest management concern is based primarily on concern about the management and use of native forests. It should be emphasised that forest management concern is a general value orientation, with the specific issues of concern being highly variable within the population and across different population subgroups. Concern may for instance be based on the effects of bushfires on native forests, the logging of native forests or specific management practices or regimes occurring within native forests. To this extent forest management concern may be more closely aligned with the effects of human use on native forest ecosystem health and integrity.

It is apparent from the survey results, that the population in Bundaberg has significantly higher levels of forest management concern than the population within the sectors of Builyan, Kingaroy and Esk. Most notably the North Coast sector differs significantly, having much higher levels of concern, than the Builyan, North East Coast, Kingaroy, Esk and Maryborough sectors. As such, it appears that the North Coast sector, has higher levels of forest management concern than five other sectors within the SEQ RFA region. Map 5.1 thematically maps the distribution of forest management concern values across the 10 sectors within the SEQ RFA region.

When comparisons in forest management concern were made across the total sample between those who had visited State Forests and National Parks and those who had not, respondents who had visited State Forests and National Parks within the last year had significantly higher levels of forest management concern than those who had not visited State Forests and National Parks. While there is a significant relationship between concern and visiting State Forests and National Parks no causal relationship was identified. For instance, it maybe that people with high levels of concern tend to visit State Forests and National Parks or that visiting State Forests and National Parks permits higher levels of forest management concern to develop.

The survey showed higher levels of forest management concern amongst those respondents who live within 15 minutes drive of State Forests and National Parks, however as indicated earlier, while there is an association between proximity and forest management concern the direction of any causal relationship is difficult to establish. In this case, respondents may choose to live closer to State Forests and National Parks because of their concern about environmental issues, or their higher levels of forest management concern may have occurred because of their residential proximity to State Forests and National Parks.

As might be expected, a significant relationship was evident between forest management concern and involvement in forest management planning or protection, with higher levels of forest management concern amongst those respondents who have been involved in forest management, planning or protection.



Although there was no significant interaction between sex and age in relation to forest management concern, there was a significant relationship between the age of the respondent and their forest management concern scores. There was a highly significant and consistent relationship between age and forest management concern, with younger respondents who are between 20 and 29 years of age having the highest levels of concern. From 30 to over 80 years of age there is a clear linear relationship between age and forest management concern, with older respondents having lower levels of forest management concern than younger respondents.

Each respondent was asked if they, or any members of their household were employed in the timber, tourism, mining, beekeeping, seed or wildflower collection and grazing industries. Households with members employed in these industries were compared in relation to forest management concern with households with no members employed in these industries. Significantly higher levels of forest management concern were recorded amongst those households with no forest or forest related industry employees, when compared to households with forest or forest related industry employees.

When comparisons within specific industry groups were made in relation to forest management concern only household employees within grazing industries were found to differ in the level of forest management concern from household with employees not in the grazing industries. Households with grazing industry employees had significantly lower levels of forest management concern than households with no grazing industry employees.

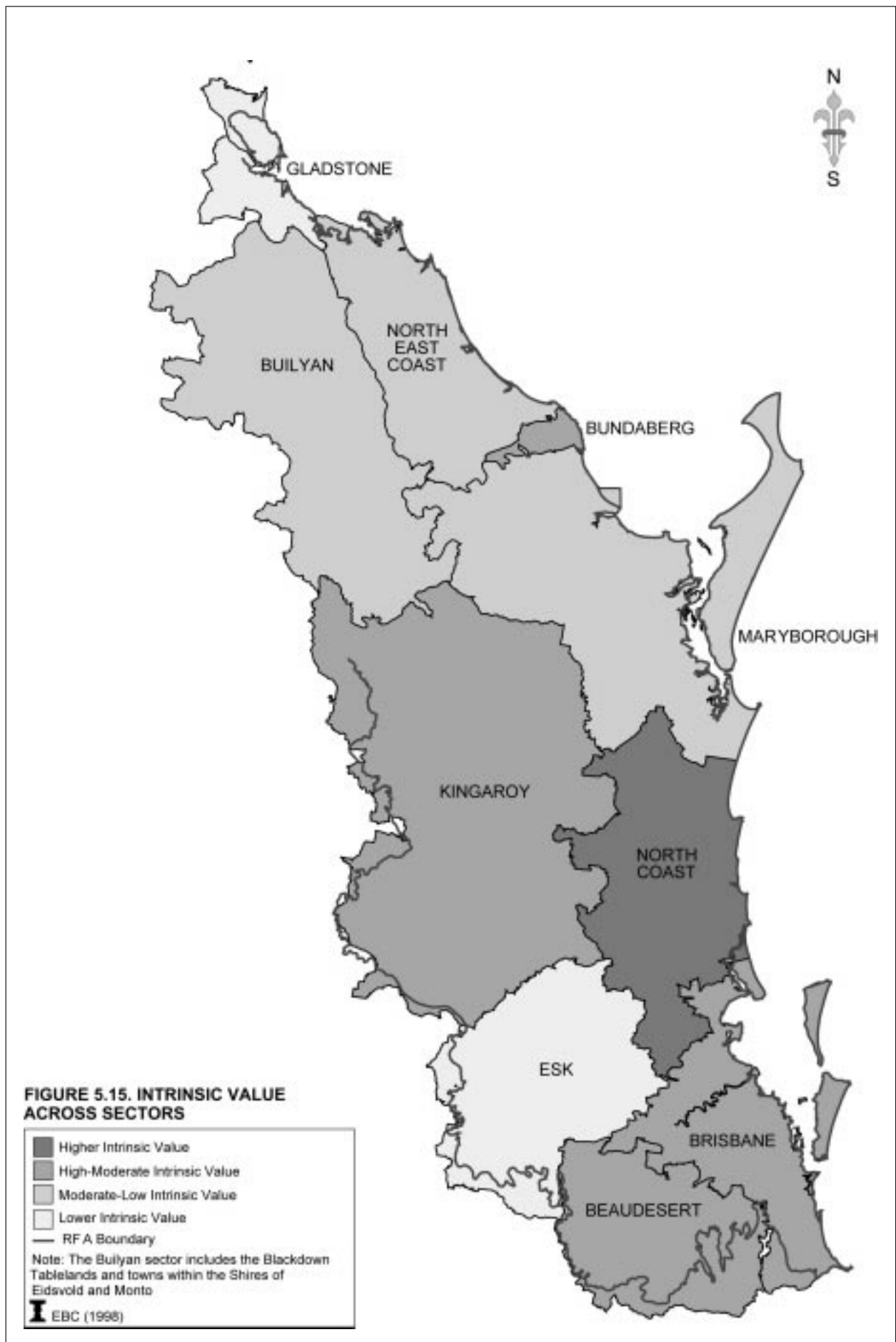
5.4.3 Intrinsic Values

The intrinsic value scale consisted of four belief statements which emphasised the inherent non-use value of forests, including their inherent and aesthetic values and the importance of protection and preservation. This value orientation is also closely associated with a biospheric or ecocentric value orientation which places an emphasis on the inherent value of nature independent of any human value that may be ascribed to it. The results of the survey indicate that not only is there a significant difference amongst each of the 10 sectors in relation to the intrinsic value of forests, but that there is a possible association between the percentage of the population employed in agriculture and forestry and intrinsic value, with low employment in this industry sector being associated with higher levels of intrinsic value within the population.

The population within the North Coast sector was shown to have significantly higher levels of intrinsic value than the population within all other sectors. In addition, the population within the Brisbane sector has significantly higher levels of intrinsic value than the population with the Esk and Gladstone and a significantly lower level of intrinsic value than the North Coast sector. Map 5.2 shows the thematic distribution of intrinsic value scores across sectors throughout the SEQ RFA region.

A significant relationship between the intrinsic value of native forests and whether respondents had visited State Forests and National Parks within the last year. Those respondents who had visited State Forests and National Parks within the last year were found to have higher intrinsic value scores than those respondents who had not visited State Forests and National Parks. As was discussed in relation to forest management concern, no causal direction can be inferred from this association. In addition, and unlike forest management concern, there was no relationship between intrinsic values and the frequency of visiting State Forests and National Parks.

A significant relationship was also shown between the intrinsic value of native forests and proximity of the respondents home to State Forests and National Parks, with those respondents in close proximity to State Forests and National Parks having higher levels of intrinsic value than those respondents further from State Forests and National Parks.



Unlike forest management concern, intrinsic value did not differ across levels of involvement in forest management, planning or protection and there was also no difference in levels of intrinsic value across age groups. However, there was a significant difference in intrinsic value between males and females, with females having higher levels of intrinsic value than males.

Each respondent was asked if they, or any members of their household were employed in the timber, tourism, mining, beekeeping, seed or wildflower collection and grazing industries. Households with members employed in these industries were compared in relation to their intrinsic value scores with households with no members employed in these industries. Significantly higher levels of intrinsic value were evident amongst those households with no forest or forest related industry employees, when compared to households with forest or forest related industry employees.

When comparisons within specific industry groups were made in relation to intrinsic value only household employees within timber and grazing industries were found to differ in the level of intrinsic value from household with employees not in these industries. Households with timber industry employees had significantly lower levels of intrinsic value than households with no timber industry employees.

Households with grazing industry employees had significantly lower levels of intrinsic value than households with no grazing industry employees.

5.4.4 Extrinsic Use Values

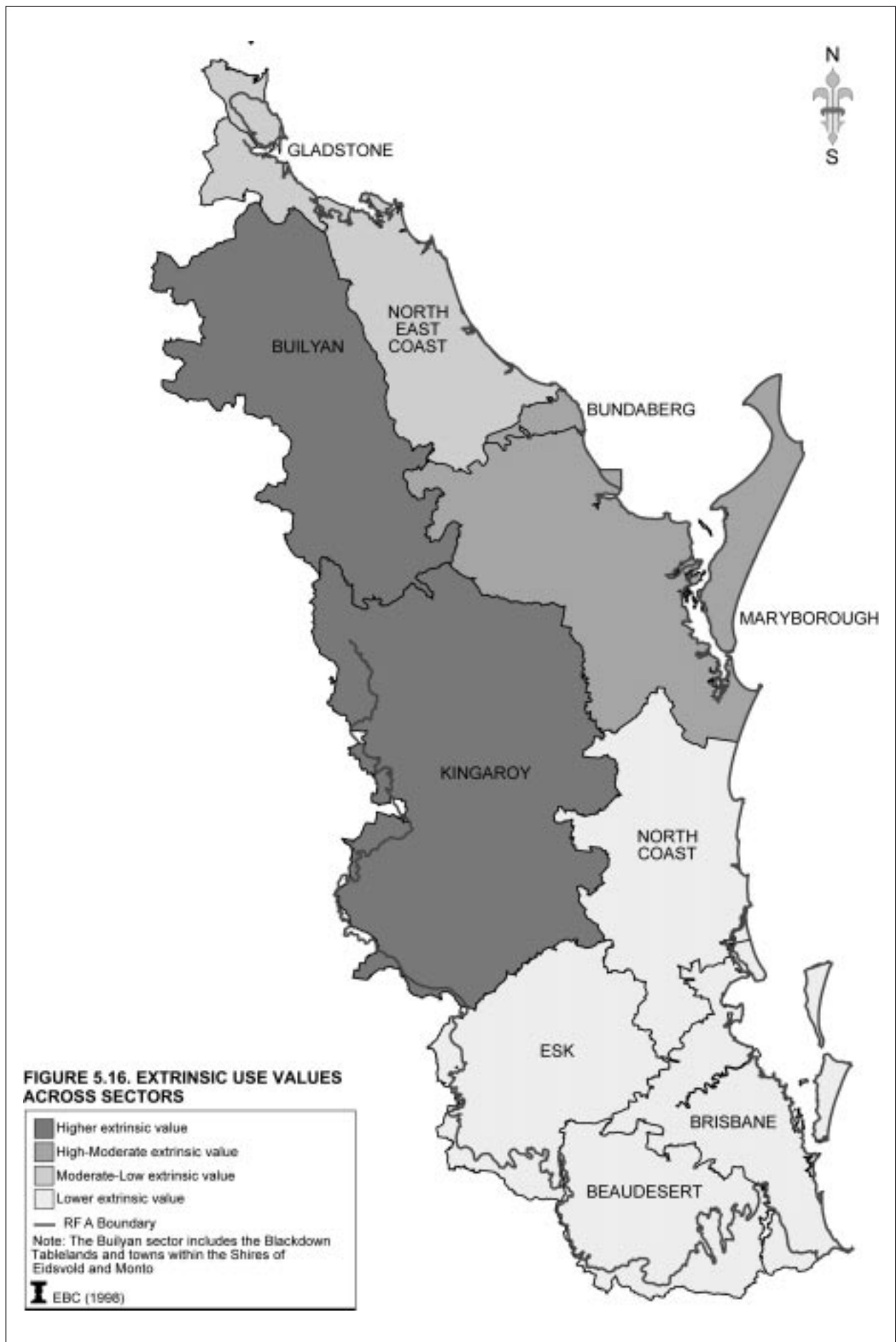
Extrinsic use values emphasise the belief in the value of forests for human use and in the context of this research the extrinsic value orientation consists of beliefs associated with the importance of employment over the protection of native forests and the economic value of native forests through timber production. In contrast to the intrinsic value orientation or the closely associated biocentric or ecocentric value orientations, extrinsic use values emphasise the value of nature in relation to human use.

Across the SEQ RFA sample the importance of the extrinsic value of native forests is relatively low, when compared to intrinsic values. However, within the SEQ RFA region and across the 10 sectors there is a significant variation in extrinsic value scores. As might be expected, high levels of extrinsic value tend to be associated with those sectors with high levels of employment in forestry and agriculture.

Builyan and Kingaroy sectors have the highest levels of extrinsic value in the population and that these two sectors differ significantly from all other sectors, with the exception of Maryborough, within the SEQ RFA region. Map 5.3 shows the thematic variation in extrinsic value scores across the 10 sectors within the RFA region.

Unlike forest management concern and the intrinsic value orientation, there was no relationship between the extrinsic value orientation and visiting State Forests or National Parks and the frequency of visiting State Forests or National Parks. In addition, there was no relationship between the extrinsic value orientation and residential proximity to State Forests and National Parks or any relationship between the sex or age of the respondent.

A relationship was shown between extrinsic value and involvement in forest management, planning or protection, where those involved in forest management, planning or protection have significantly lower levels of extrinsic value than those not involved in forest management, planning or protection.



Respondents were asked if they, or any members of their household were employed in the timber, tourism, mining, beekeeping, seed or wildflower collection and grazing industries. Respondents from households with members employed in these industries were compared in relation to their extrinsic value scores with respondents from households with no members employed in these industries. Significantly higher levels of extrinsic value were held amongst those households with forest or forest related industry employees, when compared to households with no forest or forest related industry employees. Respondents from forest and forest related industry households tend to have higher extrinsic and lower intrinsic values than households with no forest industry employees.

When examining respondents from households with specific forest industry employees, households with timber industry employees have higher extrinsic values than respondents from households with no timber industry employees. In addition, respondents from households with grazing industry employees have significantly higher levels of extrinsic value than households with no grazing industry employees.