11 Social assessment

11.1 INTRODUCTION

Based on 1991 ABS census data (census collector districts), the Western Australian RFA region had a population of approximately 155 000. More than 40 000 families and 70 000 (full and part-time) employees lived and worked in the region. Employment sectors and approximate employee numbers included mining (2500), manufacturing (7000), construction (3500), wholesale (10 000) and finance (5500). 1996 ABS data indicates that approximately 1900 people are directly employed in native hardwood industries in the RFA region (including forestry and logging, services to forestry, sawmilling, timber dressing and woodchipping). Approximately 2500 people are directly employed in these industries if metropolitan Perth and coastal areas including Mandurah and Bunbury are included. As yet, 1996 census data have not been extracted for other occupational groups.

Apart from outer metropolitan Perth (e.g. Mundaring, Kalamunda and Armadale), there are no major cities in the region. Larger towns include Collie, Manjimup, Bridgetown and Waroona. There are numerous small towns of less than 1000 people, including Yarloop, Nannup, Greenbushes, Balingup, Pemberton, Dean Mill and Dwellingup.

Social assessment projects

The social assessment process for the Regional Forest Agreement consisted of four projects, three of which have been completed during the RFA assessment phase and are described below. Further social assessment will continue following the publication of the options report.

Post impact studies analysis

This project reviewed previous land use decisions in the region and the impacts arising from those decisions. Previous social impact assessment studies and mitigation programs were also reviewed.

Regional social profile

Surveys and personal interviews were used to develop a profile of stakeholder interests in the RFA region and a general understanding of local issues and concerns relating to forest use. Australian Bureau of Statistics (ABS) census data were used to extract socio-demographic and employment information, labour force characteristics, community infrastructure and services in regional towns. A random telephone survey of more than 1000 residents within the RFA region was conducted to gain an understanding of community attitudes and interest in the forests (preliminary analysis provided).

Forest industry assessment

This project surveyed industry groups which have an economic dependence on the forests. More than 2600 survey forms were distributed. Industry groups contacted were: timber, tourism, mining, wineries and other forest-based industries such as apiary, craft and speciality timber, firewood, wildflower pickers and seed collectors.

Because of the potential for immediate direct impacts resulting from any changes in forest use, timber industry employees were also surveyed. This project aims to understand the relationship between the industry, its workers and the local towns.

Details of each project are outlined below.

11.2 POST IMPACT STUDIES ANALYSIS

A consultant was engaged to review and describe the changes resulting from decisions that have affected land uses in the RFA area and to examine what mitigation could occur as part of the RFA process. The terms of reference were to review:

- previous land use decisions within the region and social impacts resulting from these decisions;
- previous social impact assessment studies; and
- mitigation programs undertaken within the region and more broadly.

Little social impact assessment has been conducted in the RFA region. Consequently, a range of issues that has driven social change across the region was examined. These were: government forest policy and direction statements; forest industry technology and general economic activity; planning; mining; water; agriculture; tourism; attitudinal change; demographics, and economic structure. From this, a picture was built of the current social structure across the region. Based on the social impacts resulting from previous land use decisions within the region, the consultant suggested several mitigation approaches which could be investigated if this became necessary as a result of the RFA process.

The starting point for this study was 1960. At this time, significant modernisation of the timber industry began and the issue of forest conservation for values other than timber began to be addressed.

Themes that have come from this study are: increasing complexity of the decision making processes; increasing centralisation of economic activity in fewer locations; economic competition through timber industry restructuring and development of other industries; and land use issues. These are discussed below.

Increasing complexity

Over the past 35 years, every issue that has driven social change has increased in complexity. There has also been increasing intersection between these multi-sector issues. Accordingly, government policy, planning and management have become more complex.

Changes in forest product technology

The forest products industry has changed in size and structure. Access to forests, logging operations, mills and support communities has changed from localised, product-specific operations to integrated and consolidated operations. Production is now oriented towards producing a wide range of products including sawlogs and value-added components, roundwood products and residues such as chiplogs and industrial firewood.

In the past, the native hardwood industry has been linked to the structural timber market and has been significantly affected by fluctuations in building cycles. This has created variable employment opportunities.

Many major mill closures occurred in the 1970s and 1980s. However, adjustments are still occurring with older, less efficient mills closing and shifts closing at other mills in recent times. When closures occur, the industry has attempted to help workers by offering redundancy or alternative employment in other locations.

Production facilities are becoming larger, more efficient and more centralised. Processing and value adding of timber products occurs at large regional centres and logs are transported over larger distances. This trend has created more stable employment opportunities in fewer locations and those jobs available generally require a greater skills base. Manufacturing industries are generally located outside the RFA region.

Opportunity exists for increasing employment in the value-adding parts of the industry, particularly in manufacturing. People consulted in this industry considered that manufacturing is currently not well supported by government policy or the forest products industry.

Mining

Mining is the major economic contributor in the region. While its presence is limited in geographic extent at any point in time, its economic effects are widely distributed. Major mines and processing works act as economic magnets to other development. Mining also tends to be on a technological trend that increases capital investment in plant and equipment while employing fewer people.

Mining and mineral processing has resulted in the rejuvenation of several towns in the region.

Agriculture and water management

Agriculture has caused a great deal of clearing in parts of the region. Since its heyday in the 1960s, this industry has been meeting challenges of increasing international competition through seeking economic efficiencies, new crops and increasing the size of operations. This has meant a decline in the rural population dependent on agriculture, particularly in the eastern part of the RFA region. As a result, some services have diminished and there has been a consequent slow reduction in the size and number of rural towns.

At the same time, environmental degradation attributable to land clearing has been increasing (e.g. erosion, salinity and loss of native vegetation). In response, there has been an increase in the role of landcare and community-based integrated catchment management (ICM) groups. The Water and Rivers Commission and other agencies have supported ICM. Agriculture Western Australia has responded by developing the Sustainable Rural Development Program, an holistic approach to agriculture that aims to link ecologically sustainable farm practices with community economic development.

Tourism

While a relative newcomer to the region's industrial base, tourism is already a significant economic contributor and a significant employer with further potential for growth. The south-west, with its diversity of forest and natural attractions and other land uses, is a valuable tourism resource. The industry has an increasing focus on nature-based tourism.

Attitudes to the environment

Over the past 30 years there have been large shifts in community attitudes towards the environment. New legislation and public policy, increasing awareness of the value of forest for non-timber values and community-based action have influenced government decisions and resulted in considerable areas of the forest being allocated as conservation reserves.

In the 1990s timber industry workers and communities also began to organise into grass-roots action groups because they considered that their jobs were threatened by inadequate security of the timber resource and less of the resource being available for use.

Increasing centralisation

Centralisation has two components. At a local level it describes the tendency for the economic activity and population to aggregate around the major towns in the RFA region. At a regional level it describes the weight of population and economic activity occurring on the coast in local authorities such as Augusta-Margaret River, Busselton, Mandurah and Bunbury.

Forest products industry

Economic pressures on the forest products industry have reduced the number of mills and processing centres. Operations are becoming more centralised in fewer locations.

Administration

Most areas of public and industry administration have become more centralised. Government and commercial services are increasingly concentrated in major towns or on the coast.

Demographics

Over the past 30 years the population on the coast has more than doubled. Over the same period, the population in the core RFA shires (e.g. Manjimup, Bridgetown-Greenbushes) has remained constant. Population has decreased slightly in the eastern RFA shires (e.g. Cranbrook, Boyup Brook). It is unlikely that the forest products industry can make a significant difference to these trends in the future unless dramatic expansion of downstream manufacturing occurs in the core and eastern shires.

Economics and planning

The region is dominated by several major centres that act as economic and employment engines.
If communities are within easy travelling distance i.e. 10 to 15 minutes drive of these major centres, it is likely that their growth will be based on the prosperity of these centres. Towns more removed from these areas will be subject to increasing threat.

Economic competition

The regional economy is becoming increasingly diverse and is not as dependent as it has been on the timber industry. However, some towns, particularly in the core of the RFA area, remain dependent on the timber industry for employment.

The RFA process is examining economic decisions and employment in the timber processing industry and other industries dependent on forests. Policy and economic pressures have forced changes in technology that have mechanised mills to process increasing amounts of wood at a few large processing centres. Similarly, the management of plantation wood industries is highly mechanised, mobile and not necessarily linked to small local communities.

While restructuring is driven by economic necessity in order to ensure a viable industry, the benefits largely accrue to the major centres. The value to smaller local communities is uncertain. In response to this, the consultant suggested that the following could be considered in the RFA process:

- maximising employment opportunities within the forest products industry—to maximise social benefit from the RFA it is important to consider how timber industry technology can provide maximum local community employment while still remaining economically viable; and
- supporting forest-related industries that provide local community employment—it is important that local social benefit is maximised by seeking, identifying and supporting forest-related industries that provide local community employment.

Land use issues

Historically, government policy has been to hold forest in Crown reserves. Clearing for agriculture has reduced the area of native forest on private land. The current demand for plantation timber and the impact of salinisation has resulted in farming land now being returned to (plantation) forests. Each of these events has had its social effects.

Most of the public land across the RFA region is controlled under government policy by State government agencies. CALM is the largest land manager and CALM's controlling bodies (the National Parks and Nature Conservation Authority and Lands and Forest Commission) are responsible for preparing management plans which affect several large industries (particularly mining, timber and tourism). Land-use decisions are taken by government following public consultation on draft management plans. Other agencies responsible for land and resource planning and management in the region include the Ministry for Planning, Agriculture Western Australia and the Water and Rivers Commission. Land-use decision making by these agencies also includes consideration of the well-being of the communities that they affect.

Regional synopsis – social impact

From the information presented above, the consultant has drawn the following conclusions about the region:

- If a town is adjacent to a major economic magnet then it is likely to grow with that centre.
- Towns outside easy travelling distance from these economic magnets, particularly in the east of the RFA area, are under threat.
- The timber industry is unlikely to provide any significant additional employment in milling and forest management. The principal opportunities for employment growth are likely to be in the manufacturing sector and related industries. This growth is likely to be in the major centres or on the coast.
- Significant structural adjustment in the timber industry has already occurred. Nevertheless, there are some localised issues that may affect specific towns.

Mitigation approaches

Mitigation is often narrowly viewed as giving money to offset change in communities. While this is one option, there are others that may be more appropriate. From the studies examined, 13 approaches to mitigation were identified. Applying these prescriptions should be decided on a case by case basis, taking account of the characteristics of the community and the nature of the changes. The mitigation approaches are summarised below:

- none—no mitigation is proposed;
- wait and see—a commitment is given to address an issue if it arises;
- review of options—options are considered and presented to be addressed in the future if required;
- off set—providing one-off payment or facilities to off set the impact of a project or decision;
- individual assistance—provide assistance to individuals impacted by a change such as help with retraining, relocation, re-employment etc.;
- conflict resolution—resolving conflict and mediation;
- community liaison—providing information and answering questions;
- using indicators—using indicators to trigger responses for mitigation;
- structural change—modifying the way in which administrative and bureaucratic systems respond to communities;

- feedback planning—involving community representatives in the planning process (e.g. focused discussions and community economic development);
- support for communities—seeking to develop a working relationship between governments and a community, with the emphasis on ongoing support and involvement;
- community control—the community drives the change process.

What mitigation is necessary?

From the review of the various impacts on land uses the question must be asked: *is any mitigation necessary?* When reviewing events in the RFA area over the past 30 years, it appears that some broad areas of mitigation could be examined as part of the RFA process.

Improved individual assistance

While structural change has already occurred in the timber industry, there are still cases where mills are closing and workers are made redundant. While this is occurring, resources are available within existing government services to provide retraining and business enterprise development opportunities. These services are available to redundant workers who meet the relevant criteria.

Supporting choice of technology

There is strong evidence, particularly in the 1987 Timber Strategy, that major changes in the timber industry can be influenced by strategic policy direction. Opportunities exist for government, industry and unions to re-examine relevant issues such as resource security, value adding technology, local manufacturing, marketing and research. Policy which improves the employment opportunities in regional towns and addresses the trend for the reduction and centralisation of employment should be considered. Similarly, economic analysis could extend to examining ways to maximise local community economic benefit from the forests that surround existing towns.

Supporting local community economic development

One avenue which could be pursued is to initiate a more open and consultative planning process for forest operations and timber industry development, involving all timber industry stakeholders. Documented case studies which have used this approach include the major timber industry restructure in Burnie, Tasmania, and the “Doing more with agriculture” project undertaken by Agriculture Western Australia (Chambers and Galloway & Associates in prep.)

11.3 REGIONAL SOCIAL PROFILE

Assessment of stakeholder issues

The focus of this study was to ensure participation in the RFA from all peak bodies and groups with resource management interests in the RFA area. Important issues, challenges and areas of concern are profiled according to stakeholder group and geographical area. In so doing, it should be noted that this study:

- comprises only one component within the overall social assessment;
- targets specific interests; and
- was not intended to measure representative opinion on particular issues.

The primary aim of the study was to capture a broad range of views about forest use and management to assist with option development.

Methodology

Upon commencing the social assessment, stakeholder contact lists were compiled. Many additional names were included as the consultation process developed. Gaps in the original list (in terms of key interests and localities) were identified and participants often nominated other people who should be contacted. At present, the contact list includes 344 people.

Survey

The survey form and interview included four general, open-ended questions about forest use and management and two further questions. These asked: *in what area of the south-west do you have most* *interests or responsibility?* (town or shire; region or sub-region; State), and: *what stakeholder group best represents your interests?* (e.g. local government, conservation, timber, mining and tourism industries, farming, Aboriginal, etc.). Participants were asked to specify one answer for both questions. This was possible for most people, although several had difficulty "forcing" themselves into one stakeholder grouping.

Initially, a randomly-selected sample of 120 stakeholders was faxed the survey form (along with covering information). Telephone calls were used to prompt questionnaire returns. Contributions were further increased by holding personal and telephone interviews throughout the RFA area. To expand the range of stakeholder interests, approximately 70 additional survey forms were faxed to potential respondents. Altogether, 253 (or 73.5%) of the 344 people listed were contacted. In all, data from 148 surveys or interviews were analysed. (The number of stakeholders who took part was substantially higher than 148 as several interviews were attended by two or more people.)

A complete description of issues, including those pertaining to various stakeholder interest groups, will be published in a separate social assessment report.

Presentation of results

Based on responses obtained, some interest group classifications were added (e.g. scientist) or combined (e.g. tourism/recreation). Due to the low number of responses in some areas, a number of shire areas were also combined. The most frequently-mentioned issues are summarised and presented under themes. These are:

- forest use and access;
- employment/industry viability;
- forest management; and
- environment.

Overview of stakeholder issues

Many respondents from all areas wanted the opportunity to participate in the forest decision-making process. Further, many indicated they wanted a resolution to the forest management and use debate. Some argued that CALM's management plans did not reflect changing community needs and the agency appeared unaware of the impact of its decisions on local communities. Considerable mistrust existed between different community interest groups.

Several shire representatives expressed dissatisfaction with the damage caused by haulage trucks on local roads. Shires were forced to repair the damage but received no compensation.

Mixed views were forthcoming about timber plantations, with integrated tree cropping on farms more favoured. The latter was described as economically and environmentally beneficial. Most concerns centred on the loss of employment and decreased social structure resulting from large timber plantations. Aesthetic impact was also mentioned as a concern. However, others considered plantation timber to be the timber industry's future.

The lack of agreement about what constituted sustainable forest management and the definition of old growth forest, emerged as major issues across all shires. Consistency and certainty of supply was the key issue for timber industry participants. Tourism and mining industry representatives also strongly stated their need for resource security to protect current and future investments.

A key issue for the timber industry was management of a changing resource—it increasingly relies on timber from regrowth forests. Log diameter was decreasing and this required different technology. Coupled with this, the availability of first and second grade sawlogs was diminishing. The industry's view was that any changes in reserve systems would compound the difficulties it faced.

Albany/Denmark/Plantagenet/Cranbrook
Forest use and access issues involved: maintaining forest access and hunting and gathering rights for indigenous people; preserving the cultural values of the forest; and adequately managing the relationship between tourism and the presence of old growth forest.

Issues relating to **employment/industry viability** raised the need to compare the number of jobs created with the jobs lost through the use of bluegum plantations; and value adding has flooded the market and forced the price down.

Forest management issues included: diminishing log quality and quantity; declining population and changing social structures from timber plantations; new tree species and markets (including indigenous, high-value, hardwood timber species) required for farms in different rainfall zones. Farmers required greater knowledge of forest management practices.

In relation to **environment issues,** opinions were divided about the long-term sustainability of current forest management regimes. In particular, logging and clearfelling were described as causing: loss of habitat and biodiversity; loss of landscape amenity and community sense of place; decreased aesthetics and tourism potential; increased nutrient export; increased salinity; and high levels of soil pathogens. Protection of riparian vegetation was also considered important.

Augusta-Margaret River
A key **forest use and access issue** was to prevent indiscriminate forest access due to increasing pressures and competing demands.

Forest management issues included: ensuring maximum use of native forest resources; and allowing CALM to implement its timber strategies.

Environment issues raised were: the perceived tourism significance of old-growth forests; and opposition to logging or mining in national parks.

Bridgetown-Greenbushes
A **forest use and access issue** was to improve equity between old growth forest conservation and the timber industry

Forest management issues were: future timber demands should be met by plantation timbers; the forest was not managed ecologically sustainably but for timber production; the shire has an unreasonably low percentage of conservation reserves; timber recovery rates require improvement; current rotation practices “juvenilise the forest”; locking up large areas of forest increases stress on the remaining resource; and security of tenure is required by the timber, mining and tourism industries.

Environment issues included: the recognition that there were many conflicting community views and pressures about forest values; and old growth forest protection.

Bunbury
Forest use and access issues covered: protecting the native forest resource for security and future investment of the growing nature-based tourism industry; and meeting the needs of the silicon industry for consistent access to low-grade jarrah log supply.

Employment/industry viability: Western Australia’s Farm Forestry Task Force identified 2600 potential jobs in farm-based forestry; the non-competitive pricing structure between native timbers and imported timber discouraged greater expansion of plantation forestry; and the claim that more than half of the workforce in some south-west towns are employed in the tourism industry.

Forest management issues were: placing timber reserves into national parks puts pressure on the rest of the resource; plantation reserves on agricultural land are less favoured than integrated farm forestry; balancing productive forest with multiple-use forest areas; providing a secure supply of quality timber logs; the criticism that political decisions are made without industry or community consultation; and sustainable use of the forest resource is imperative.

Environment issues related to conserving adequate areas of old growth forest for protection of biodiversity and catchment hydrology. Forest hygiene and forest residues were recurring concerns.

Busselton
A key **forest use and access issue** raised was that mining leases in native forests automatically raises public objection.

An **employment/industry viability issue** was that timber communities are declining due to industry rationalisation and increased automation.

Issues relating to **forest management** included: forest recovery rates must continue to improve; opposition to the use of jarrah for the silicon smelter; sawmills required an adequate supply of quality timber; and opposition to clearfelling and woodchipping.

Environment issues were: current forest management practices create a monoculture and juvenilise the forest; and mixed views exist about prescribed burning practices.

Collie/WestArthur/Williams
The key **employment/industry viability issue** was that timber workers face job insecurity.

Forest management issues included: balancing the retention of old growth forest with the demands of the timber industry; increasing plantation areas reduces the local population; and salinity problems have developed from the logging regime.

Environment issues were: there is pressure to conserve the remaining forest; and mining land is rehabilitated to the original forest type.

Donnybrook/Capel/Dardanup
A key **forest use and access issue** was that timber and tourism could coexist with improved public understanding. Overcoming the "emotional distortions" of the green movement and achieving a balanced view were also stated.

Employment/industry viability issues raised were: the need for job security for young timber industry workers; balance conservation and employment; and assistance for local communities to develop broader value-adding opportunities.

Forest management issues included: producing high quality jarrah sawlogs on a hygienic and sustainable basis; better management to protect biodiversity (e.g. adoption of an improved prescribed burning program); sharing forest management between the community and CALM; and the view that politics and the media prevent an informed community forest debate.

Environment issues were: to conserve the remaining native forests; provide adequate conservation reserves; the need to adopt an integrated catchment management approach; and opposition to the creation of wilderness areas unless they can be created as a result of genuine conservation areas first being created.

Harvey
Employment/industry viability issues included the assertion that the timber industry needs to remain viable and, if further resources were locked up, it would not continue to be sustainable. A number of people interviewed did feel threatened by the loss of the town mill and the "domino effect" of dwindling services (e.g. school teachers, local shops).

Forest management issues included the view that CALM does an excellent job but not in the eyes of the public. In this regard, "they don't advertise what they are doing and when they do it"; "if it is sustainable, people need to be convinced"; "there is no communication/education and most of the general public wouldn't have a clue what is happening". Other comments concerned the importance of burning and fire control. For instance, "bush needs fire to germinate—good hot burns destroy dieback—if we don't burn we'll end up like the fire in NSW".

Manjimup
Issues relating to **forest use and access** were: scientific answers will overcome the polarisation of forest views; Pemberton and Northcliffe requires multiple forest activities and access to old growth forests; and forest access is required for Aboriginal people for hunting and cultural reasons, recreational activities and low impact tourism.

Employment/industry viability issues involved: the timber industry is rationalising and shedding jobs; timber industry employment has substantially declined in the last decade; significant community impacts will occur in Manjimup and Pemberton if the timber industry closed; Manjimup depends on a viable timber industry and a stable work force; the Commonwealth Government's tariff policies restricted the timber industry's international competitiveness; and Pemberton and Northcliffe's future lies in tourism.

Forest management issues covered: the need to recognise that Australia's wealth came from its primary resources; long-term resource security sought by timber, mining and tourism industries; without harvesting forests will die of old age, revenue will be lost, wildfire risk increases and towns die; the biggest industry operators were considerably less efficient than smaller mills; the timber industry's resource problems are due to "slash and burn" mentality rather that conservation pressures; forest management is hindsight management; CALM has an excellent forest management policy; contention about whether present forest management practices were sustainable; political decisions were taken without awareness of the local impacts; mixed views about hardwood farm forestry plantations due to social impacts perceived; criticism that some areas were given national park status when better areas existed (e.g. Shannon); current regeneration practices were contentious; and native forest timbers were significantly undervalued in royalty structures which encouraged inefficiencies.

Environment issues were: retaining as much old growth forest as possible to ensure a future for Northcliffe and Pemberton; jarrah logs are undervalued and inadequately used; it is “trendy to be green”; burning programs were contentious; and the limited wandoo forests must be conserved.

Murray/Waroona/Boddington
A key **forest use and access issue** was requiring better recognition of the value of tourism.

Employment/industry viability issues were: value adding can create additional employment opportunities; and recreational facilities can lead to employment opportunities.

Forest management issues were: blanket exclusion zones are highly unsatisfactory to the mining industry; allow increased participation by community and industry groups into forest management; the mining industry requires negotiation opportunities to mine in forests; a sustainable timber industry was paramount; better use of forest resources was required; and the use of jarrah forest residues for charcoal was opposed.

Environment issues were: conferring national park status creates a negative public attitude towards mining; and clearfelling and prescribed burning regimes severely impact upon apiarists.

Nannup
A **forest use and access** issue was that tourism will suffer due to over-harvesting practices.

An **employment/industry viability** issue was that Nannup’s sawmill would not remain.

Forest management issues included: sustained yield logging was subjective; current sawlogs production methods and forest management practices were unsustainable. The lack of old growth forest in the area, especially jarrah, was stated.

An **environment issue** was opposition to logging in gazetted and non-gazetted road reserves.

Outer metropolitan Perth
Forest use and access issues were: to manage and control forest recreation; and concerns related to the apiary industry which requires continued access to quality forest areas for honey production and bee-breeding purposes.

Employment/industry viability issues concerned the decline in the apiary industry; and the need for enhanced value-adding processing to create more jobs.

Forest management issues included: sustainable use of the forest was essential; maintain areas for tourism and recreation; jarrah should only be used for high-value end products; the extent of clearfelling affects the viability of the apiary industry; concerns about prescribed burning practices, regeneration techniques, jarrah dieback and weeds; and CALM’s limited resources to manage national parks adequately.

Key **environment** issues were: to conserve and protect the natural environment and the need to keep the understorey in natural condition for the benefits of other industry groups.

Perth
Forest use and access issues were: strong opposition to blanket forest exclusion areas by the mining industry; limiting access to quality resource areas, e.g. jarrah forest, and addressing Aboriginal heritage issues prior to forest use.

Employment/industry viability concerned the declining apiary industry; declining timber industry employment; the need to have accurate investments of future log yield and quality for investment planning; and value adding provided skill upgrade opportunities.

Forest management issues included: ensuring a consistent and secure resource supply for the timber industry; establishing a well-researched and managed farm forestry and plantation timber industry; comments regarding Western Australia’s world-class forest management; that a native forest timber industry was not sustainable in the long term. Others, however, said the current forest management policy ensured sustainability and should be continued and extended.

Environment issues involved: retaining sufficient areas of old growth forest for its tourism, aesthetics, biodiversity and conservation values. Another view was that water quality could be affected by forest management and therefore its protection was important.

Overview of areas of concern

In addition to key issues, participants were asked: *are there any areas of forest that you are particularly concerned about and why?* Responses are discussed below.

While people were asked to be as specific as possible, many could be no more specific than noting their concern for the whole RFA area. Reasons included comments such as "it's under threat", many of which were provided by people who saw that the future of timber supply areas was in jeopardy.

The security of these areas was essential for sustaining the industry and, as a result, the immediate future of towns including Yarloop and Nannup.

Others who held that forest areas were threatened perceived problems with current management regimes included over clearing, "unnatural" burning practices, forest fragmentation, loss of carbon to the atmosphere, dieback and infestations of other diseases, weeds and pests. Another frequently-mentioned issue was sustainability, with the related concern being that the yield in timber production was unsustainable. Issues including questionable regeneration rates and soil quality.

It was suggested that some old growth forest should be set aside in each shire, and that a continuous forest belt connecting the shires be maintained to assist migration of native animals. Also noted was a need to ensure that aboriginal sites and areas with identifiable heritage value were recorded and protected.

Another common response to the question of concern areas was "none". Reasons included "not just greenies—the local community highly values the forests too", and "I have strong confidence in CALM's management", and "their judgement should be respected". In a similar vein, others gave reasons such as:
- things are adequate and should remain the way they are;
- many south-west communities rely on the forests to survive;
- these areas need to be managed to promote timber supply;
- the resource is eroding—many production areas being placed into conservation reserves;
- access to all areas containing premium grade logs is needed – to lock up all areas will only restrict management options and future production;
- there is green pressure on government to cease all logging in native forests;
- there is too much focus on this area but not on other neglected forest areas such as those in the wheatbelt, CALM always cops criticism and you never hear a good news story.

Concerns with national park and reserve areas were also stated several times. Comments included, "these were set aside in the past and yet continue to expand", and they often "prevent proper management and control, and are potential high risk areas for wild fires".

Others stated a concern about degradation of waterways. Examples included the Blackwood, Donnelly, Warren, Deep and Margaret rivers. Degradation included weeds, erosion and siltation (noted as caused by farming practices and clearfelling too close to river banks). From an Aboriginal perspective, this has caused a loss of spiritual as well as physical value.

Others were concerned about all areas of jarrah and karri forest. Reasons given included issues such as:
- its high intrinsic value—does not occur anywhere else in the world;
- the belief that clearfelling is (a) "juvenilising" the forest (b) producing monoculture and equal-aged forests (c) is reducing the quality and quantity of available honey;
- questions about whether healthy regrowth is occurring;
- there is too much waste when trying to produce first grade saw logs;
- there is inadequate reservation of trees in large blocks;
- key conservation areas (and biodiversity/ecosystem integrity) need to be preserved;
- timber production should be phased out for the "higher" and "longer-term" values of conservation and tourism.

In contrast with some of the points above, it was stated that the regeneration that is occurring shows that the timber industry is sustainable

"All old growth areas" was frequently mentioned. Common issues related to the need to place more emphasis on plantations for wood chips, enable more transparency and public voice in management decisions, and to use remaining old growth timber only for maximum value, high-quality products.
In this regard, many agreed that access to old growth areas was required to allow value-added products to be developed. Another widespread view was that insufficient areas of old growth remain and how, for example, "this area falls below the criteria for reserve areas". One person also held the opinion that

species diversity was an essential part of the economic survival of south-west towns but that this was being lost.

Summary and conclusions

In summary, there was a recurring debate about what sustainable forest management practices entailed. Some, for example, referred to forest regeneration as an indicator of sustainable management, others though mentioned the need for biodiversity and overall health of the ecosystem. While there was consensus about the imperative for sustainable management, there was, however, no agreed definition of what it meant.

The long-term viability of the timber industry was often discussed. Those with timber industry interests argued that the industry faced uncertainty over its resource supply, and therefore its long-term future, as a result of conservation actions.

An opposing view was that the timber industry was presently downsizing due to economic rationalisation, rather than as a consequence of resource supply issues. Many commented that their town had a history of social and economic dependence on the timber industry. They feared a dramatic snowballing effect throughout the community if further job losses occurred and statements such as "the town will die" were put forward. Other examples were given of towns that had strengthened in new directions following the reduction in timber industry activities (e.g. Denmark, Margaret River). Both points of view were also raised in the post impact studies project.

Other industries, particularly tourism, were said to have made significant capital investments in local towns and, in some areas, tourism was heralded as the emerging growth industry. Limits were seen, however, on the "style" of tourism appropriate for the region. The emphasis was for a low impact, nature-based approach with infrastructure sympathetic to the surrounding environment. Industry operatives and many locals did not wish to emulate nearby commercial tourist towns. Despite their positive outlook, tourism representatives perceived the industry was at risk because of the impact of logging activities around them, particularly in old growth areas. They persistently criticised what was considered to be an unwillingness by CALM to engage in a constructive dialogue and negotiate acceptable outcomes for all parties.

Considering comments received, it would appear that more frequent, open and timely communication between CALM, industry and the local communities would assist with improving the multi-faceted interrelationships.

At the same time, a number of participants were quite satisfied with CALM's management and, notwithstanding some concerns about management and policy issues, CALM often had a solid profile in local/regional areas. In this regard, there may well be a "good news story" to address negative public perceptions, particularly in Perth, major centres and coastal areas. Comments varied from "CALM has a world-class management system" to "CALM has failed to consider issues such as biodiversity fully".

It should also be noted that while many concerns about "bad science" were directed towards CALM and the timber industry, the tourism industry and conservation groups also received similar criticism.

Forest management is clearly a highly-emotive issue and, according to many, interest-based assumptions and world views may be influencing the debate more than hard and fast data. A key issue needing to be addressed is accountability. According to those surveyed, this would entail providing information on request, enabling public and professional scrutiny of forest-related decision making and using the best scientific knowledge available to manage the resource.

Many stated that there was room for both the timber industry and other forest dependent activities. On the other hand, some representing these activities (e.g. tourism, recreation, nature conservation, water supply) considered their activities were devalued by current forest management practices.

A major issue in south-west communities is the incompatibility of positions. In short, there were those who perceived forest management objectives as solely timber production and others who stated they were for timber production *and* ecological sustainability.

Attitudes towards the future use of individual forest blocks highlight different views about the inherent value of a forested area. Given the level of media attention, it was not surprising that Giblett and other "icon" blocks were widely mentioned throughout the region. For example, Giblett was referred to by conservation and/or timber (as well as other) stakeholders in Manjimup Shire and also those in Perth, Donnybrook, Capel, Dardanup, Augusta-Margaret River, Murray, Waroona, Boddington, Harvey and Bridgetown.

There may well be many instances where both the timber industry and other forest-dependent activities can coexist. Indeed, in discussing the potential for overlap, particularly in the area of value adding, one person noted that “the unions and the conservationists may have more in common than they think”. Fundamentally, timber and conservation (and often tourism) interests hold divergent views yet share the same basic motivation, namely *how are we going to get more trees?*

Apart from extreme positions, many people are not opposed to logging per se and would like to see the timber industry continue to operate in the RFA. A number of participants with conservation interests empathised with timber industry employment and industry restructuring concerns. Relating to process/management and production issues, key words here included *value adding* and striving for *maximum value*, *quality* timber products obtained via *sensitive*, *sustainable* management regimes. These themes are also reflected in results obtained from the survey of the regional community.

Others agreed there was a need for further industry development but cautioned that companies have to invest large amounts of money in order to value add. Related to this, there were views that “the greens don’t see these impediments”, and that while many companies were poised for further development, “no one is going to spend the money without security of supply”. It was proposed a number of times that a new government/industry policy is needed to support increased value adding and to kick start the potential for further processing of timber, including manufacturing).

In conclusion, it is observed that an effort to move the debate away from its polarities and towards common ground is desirable. An approach that includes stakeholder input and is based on balance and partnership could be facilitated. Potentially-impacted communities require some sense of control of change, meaningful involvement in the planning process, trust in the planning bodies, and a belief that decision-making processes have been fair to all. This is consistent with the mitigation approach recommended in the post impact studies project.

Survey of the regional community

Methodology

The objective of this study was to identify the social values associated with forested land within the population of the Western Australian RFA region. The study was based on a random sample of 1106 participants drawn from across five sub-areas within the region. These areas were:

- Urban (Kalamunda, Lesmurdie);
- Central (Jarrahdale, Collie);
- Southern forests (Donnybrook, Bridgetown, Manjimup, Northcliffe, Pemberton, Denmark);
- Margaret River (Yallingup, Margaret River, Augusta); and
- Eastern (from Talbot Brook to Mt Barker).

This approach allowed for comparisons across each of the five areas, and inferences drawn in relation to the population throughout the region. Telephone interviews assessed a range of questions in relation to:

- forest values;
- the use of native forests; attitudes towards management planning;
- the level of concern for native forests; and
- the perceived impacts of changes in the forest industry on communities and families.

A full list of questions is included in Appendix 2. The responses to two of these questions are illustrated in Diagrams 1 and 2 in Volume 2. Each diagram shows the way respondents in certain locations responded to a particular survey question.

Forest values

There was significant geographic variation in social value systems towards native forests (see Table 11.1). This suggests that the development and implementation of forest policies may need to address regional differences.

Data analysis on the 12 items suggests that there are three primary groupings or “clusters” of values (see Table 11.1). They consist of four items that reflect concern for native forests, three that reflect the environmental value of native forests and two that reflect functional uses of the forest (i.e. uses of the forest by various industry groups).

Within the regional population, high levels of concern were expressed in relation to the management of native forests. When comparisons were made across the five regions, higher levels of concern were expressed within the Urban and Margaret River areas when compared to the Southern forest area.

While concern in the Southern forest was still high, it is probable that the difference in concern is related to the level of community involvement in forest-management issues. Less dependency and direct contact with forest-management issues in the Margaret River and Urban areas suggests that many of the concerns in these areas may develop through indirect information sources, in particular media representations of forest management and the forest industry.

Responses relating to functional forest uses differed significantly between the Central, Margaret River and Southern forest areas. An item referring to a possible value conflict between employment and the preservation of native forests, showed that 58% of the population within the region held conflicting values between the need for employment and the need for protection of native forests. This was particularly high in the Central and Eastern areas, when compared with Margaret River.

Table 11.1 Summary of social value scales: percentage agreement with social values

Value scale	WA RFA region	Sub-regional areas Central	Urban	Eastern	Southern Forest	Margaret River
Value conflict						
I sometimes feel torn between the need for jobs and the need to preserve native forests in WA	57.6	*67.9*	*55.5*	*66.4*	*55.8*	*50.2*
The conservation and protection of native forests in WA will harm the WA economy	66.4	*60.6*	*71.2*	*61.2*	*64.8*	*73.4*
Composite index score	**2.44**	**2.57**	**2.41**	**2.53**	**2.37**	**2.31**
Timber and logging industry dependency						
The area in which I live is very dependent upon the timber and logging industry	27.9	*39.0*	*16.5*	*23.7*	*58.9*	*13.1*
Laws to protect native forests						
Laws to protect native forests do not affect me greatly	46.4	38.6	50.2	45.5	48.3	52.3
Tourism dependency						
Tourism is very important in the area in which I live	81.4	*72.6*	*78.5*	*66.8*	*92.2*	*96.4*
Environmental concern						
I am not confident that native forests are being well managed in Western Australia	65.9	*68.2*	*71.2*	*59.4*	*58.2*	*76.6*
Better laws are needed to protect the use of native forests	77.6	*77.3*	*85.0*	*73.3*	*68.7*	*79.9*
I am very concerned about the management and use of native forests in WA	79.9	*80.3*	*84.9*	*75.8*	*73.2*	*87.3*
People who access native forest should have more say in how forests are managed	73.9	77.7	76.9	73.7	69.9	74.5
Composite index score	**1.98**	**1.97**	**1.87**	**2.07**	**2.15**	**1.86**
Intrinsic value						
One of the main reasons I live in this area is the natural beauty of the forest	76.8	*73.9*	*80.4*	*54.8*	*80.2*	*81.4*
Trees are important for their own sake	96.7	98.7	96.3	98.1	94.9	96.8
The balance of the forest ecosystem is very delicate	94.7	95.0	96.8	95.0	93.0	93.7
Composite index score	**1.64**	**1.64**	**1.57**	**1.81**	**1.74**	**1.55**

Source: Environment and Behaviour Consultants (1997)

Note: Values in italics indicate a statistically significant difference across regional areas. Composite index scores vary between one (high) and four (low) and are the mean of the items forming the index.

All areas reported high levels of environmental values, there being no significant difference between the Southern forests, Margaret River and Urban areas.

It is generally believed that environmental and functional value orientations distinguish between different groups of people in society, similar to the way that individuals are identified on a political scale from "left to right" or from "green to brown". However, in the case of forest values it appears that many in the community hold both environmental and functional values concurrently. More than half of the population reported conflict between employment and the use of native forests, and the need to preserve forest areas.

Forest use and recreation

Seventy seven per cent indicated they had visited native forests within the past year, with 50% of the population visiting native forests at least once a month or more. While a significant percentage visited native forests near Pemberton and John Forrest National Park, near Perth, an analysis of the locations of native forests visited within the past year indicated the majority visited highly-localised areas often in close proximity to their homes. The majority of those visiting native forests did so to undertake passive recreation activities such as bushwalking, picnicking and sightseeing.

Planning of native forest areas

Eighty per cent had sufficient interest in the management of native forests that they were able to identify issues they believed should be considered in the development of management plans. Across the region the two core issues the community believed should be addressed were the conservation of forest areas for future generations and the need to regenerate areas of native forest through planting of appropriate tree species. Other issues identified were the need to manage fire in native forests and the need for better control of dieback and other diseases.

Concern for native forests

Fifty-three per cent indicated they were concerned about specific places in Western Australia where changes to native forests had occurred from human use. The areas of most concern were native forests in the Pemberton area and native forests in the south-west generally. Many of the areas of native forest that were identified were highly specific and localised areas in the south-west. The main issues of concern were logging, woodchipping and clearfelling.

Impacts of changes in forest industry activity

Over one quarter of participants perceived that in the past two years there had been a change in the use of forests in their area by industry operations that had affected their community. The most significant change was the loss of local employment. Again, there were significant regional variations in the perceived impacts of forest industry activity on communities. Thirty eight per cent in the Southern forest and 18% within the Urban area indicated there had been changes in forest industry activity that had affected their community.

When participants were asked to indicate if a decrease in the future use of forests by the timber, mining or tourism industries would affect their community, more than half of the total sample agreed this would be the case.

Again, the most significant community change was stated as a loss of employment. There were highly significant regional variations in response to this question, with 74% of the population within the Southern forest, 39% of the population in the Urban area and 33% in the Eastern area believing a decrease in forest-based activity would affect their community.

Although a high percentage of the population believed a decrease in forest-based activity would affect their community, a lower percentage (26%) indicated that such a decrease would directly affect their families, with the loss of employment being the most significant effect.

Attitudes towards industry development

Participants were asked to identify what they considered would be the main industries in their area within the next 20 years and what new industries, if any, they would like to see developed.

More than half indicated that tourism would be the main industry in their area within the next 20 years. In contrast, 6% indicated the processing of native timbers and 15% indicated the processing of plantation timbers would be the main industry. However, there were significant regional variations in response to this question. For instance, within the Margaret River area 84% indicated tourism as being the main industry, while in the Central area 60% perceived mining would be the main activity. Within the Southern forest, 20% thought the processing of native timbers and 60% thought the processing of plantation timbers would be the main activities within the next 20 years.

Fifty-seven per cent of the sample stated they would like to see new industries develop in their area, with tourism being the preferred type of new industry development (47%), followed by the processing of plantation timbers (29%). The development of the tourism industry was also found to be the preferred type of industry development across all regional sectors within the region.

Ability to deal with change

One component of the social assessment process includes an investigation of the resources a community has at its disposal and its degree of sensitivity to respond to changes in land use. Using research by Cottrell (1976) and Goeppinger and Baglioni (1985), more than 20 measures were identified and analysed for each of 43 towns within, or in close proximity to, the RFA region. The measures were combined into a composite indicator, the community sensitivity index (CSI).

Using 1991 and 1996 ABS census data, measures for the CSI include: distance from major centres; ratio of dependants; occupancy rates; median age; and median family income. Also included are the percentage of: a town's population employed in agriculture/forestry, bought homes, housing authority rentals, and occupied dwellings.

The CSI also includes an estimation of the "community vitality" for each town. Community vitality includes as assessment of the resources existing within a particular community including number of: educational institutions, medical and other agencies, forest industries, other businesses, shire councillors, community groups, annual events, and awards won.

Most measures were weighted equally (i.e. not rated as more significant than another). It is most likely however, that some measures are more indicative of a community's ability to respond to change than others. It was considered that higher weightings should apply to measures relating to timber mills and contractor employment, the proportion of the town's workforce population employed in these areas, and distance from the nearest major centre. All measures were then combined for each town in the RFA region to produce an index indicating sensitivity to change.

The CSI provides valuable information by indicating towns that appear to be most vulnerable to responding to change. However the CSI need not be used as a stand-alone measure. It can be combined with information gathered by the forest community coordinators during surveys, interviews with stakeholder groups and from the industry expenditure surveys to make this assessment. Initial data analysis revealed that towns fall into four categories ranging from those with a high sensitivity to change, to those with a low sensitivity to change. The CSI is a relative-rather than an absolute index. That is, the CSI rating is relative only to other towns in the region.

11.4 FOREST INDUSTRY ASSESSMENT

Objectives

The core objectives of this study were to:

- identify the number of forest industry and related businesses (including those involved in timber processing, contracting, seed collection, wildflower collection and beekeeping) in the RFA region and their town distribution;
- identify the town location and number of timber industry employees resident in the region;
- develop a social profile of timber industry employees; and
- identify the local and regional expenditure patterns of timber industries and employees.

In addition to timber industries and employees, the research also examined the town distribution and expenditure patterns of mining industries and tourism businesses in the region.

Methodology and expected outcomes

Information required to address each of the core objectives was based on surveys of timber industry and related businesses and their employees, and surveys of tourism and mining industries; and an examination of secondary data derived from existing databases and mailing lists of forest and related industries in the region.

Existing databases and mailing lists were used to identify the location of industries and businesses, with questionnaires then being distributed via a mail-out survey.

In relation to forest industries and businesses, it is expected that links will be highlighted showing the relationships between various industry groups and local towns. This analysis will identify specific town catchments or town resource clusters (TRC) representing groupings of towns with dependency on specific areas of native forest. Industry and employee profiles will be developed to identify the type and distribution of forest industries within the TRC. The employee profiles will identify age and life-cycle structure to give an indication of dependence on social and community services within the region. In addition, the pattern and location of industry expenditure for forest industries within each TRC will also be identified, as will the pattern and location of household expenditure by employees.

In addition, in the survey of logging contractors and forest user businesses, each business was asked to indicate the town in which the main supplier of particular goods and services was located.

Table 11.2 shows the items of expenditure for timber processing and contracting businesses (including sawmills). Also shown are preliminary findings relating to the minimum, maximum and median distances from the location of the forest business and that of the goods/services supplier. The median distances for usual business expenses indicates that, except for power (including gas and electricity), accounting and insurance, all usual business expenses are made to suppliers in close proximity to the town location of the business. All repairs and maintenance costs are also incurred within close proximity to the business. As might be expected, the table also indicates that major equipment or asset purchases come from outside the local area, and generally at major regional and urban centres adjacent to the RFA region.

Table 11.2 Preliminary findings: median distances for the location of timber processing and contracting business expenditure

Goods and services	Minimum distance (km)	Maximum distance (km)	Median distance (km)
Usual business expenses			
Power (electricity, gas)	1	339	38.5
Fuel	1	230	5.0
Freight (general business freight)	1	280	1.0
Freight (timber haulage)	1	277	1.0
Accounting	1	308	31.0
Insurance	1	281	46.0
Office supplies	1	182	1.0
Advertising and marketing	1	192	1.0
Banking	1	279	1.0
Printing	1	182	1.0
Median distance for usual business expenses	**1**	**279**	**1.0**
Repairs and maintenance			
Machinery or equipment	1	281	5.5
Vehicles	1	94	1.0
Building and office	1	127	1.0
Median distance for repairs and maintenance	**1**	**127**	**1.0**
Major equipment or asset purchases			
Machinery, plant or equipment	1	359	181.0
Vehicles	1	359	16.0
Computing equipment	1	233	33.0
Extensions or alterations to buildings	1	31	1.0
New building or land purchases	1	41	1.0
Median distance for major equipment or asset purchases	**1**	**233**	**16.0**

Source: Environment and Behaviour Consultants (1997)

Note: Distances are road distances between towns.
A minimum distance of 1 kilometre was used where the supplier was in the same town as the industry.
Several industries purchased major machinery, plant and equipment from interstate and overseas. The primary source of machinery within Western Australia was from Perth.

In addition, the pattern and location of household expenditure by employees within each TRC will also be identified.

The Australian Bureau of Statistics household expenditure survey, when used concurrently with survey information in the project, will also identify the magnitude of household expenditure by forest industry employees within the region and the percentage of household expenditure attributable to and generated by forest industries.

Similar analyses will be undertaken for tourism and mining industries including an identification of the distribution of these industries and the locational patterns of industry expenditure in the region.

The analyses undertaken as part of this project will provide a direct link between industry use of, and town dependency on, specific forest areas in the region. Analysis of forest industry dependency of towns will allow some understanding of how a change in resource volumes or resource availability within a specific area may affect communities throughout the region.

The results of this project will be published in a subsequent report.