

# **DRAFT Social Assessment Report**

## **Social Assessment Projects**

There are 4 projects comprising the social assessment process for the Regional Forest Agreement. Three projects have been - or are about to be- completed during the RFA's pre-option phase. These are as follows.

### **1. POST IMPACT STUDIES ANALYSIS**

Reviewed: previous land use decisions in the region and the impacts arising from those decisions; previous social impact assessment studies and mitigation programs undertaken.

### **2. REGIONAL SOCIAL PROFILE**

- Surveys and personal interviews were used to develop a profile of stakeholder interests in the RFA region to generally understand 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 (to be completed).
- A random telephone survey of more than 1000 residents within the RFA region was conducted to understand community attitudes and interest in the forests (preliminary analysis provided).

### **3. FOREST INDUSTRY ASSESSMENT**

This project surveyed industry groups which have an economic dependence on the forests. Over 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 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 (preliminary summary provided).

Details of each project are outlined below.

# Post Impact Studies Analysis

## INTRODUCTION

This project was designed 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 (SIA) studies
- 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 have driven social change across the region was examined. These were: forest, policy and direction statements; forest industry technology and general economic activity; planning; mining; water; agriculture; tourism; attitudinal change; demographics, and economic structure. Issues over which government policy and the forest product industry have had a significant influence were also examined.

From these issues a picture was built of what has led to today's social structure across the region, and directions to investigate for mitigation were developed.

The starting point for this study was around 1960, when significant modernisation of the industry began and the limits to the timber reserve began to be noticed.

Unifying themes that have come from this study are - increasing complexity, increasing centralisation, economic competition and boundary issues. These are discussed below.

## INCREASING COMPLEXITY

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

### **Changes in forest product technology**

The forest products industry has gone from a number of small companies (with localised access to forest, small logging operations, mills and support communities) to one dominant company and a number of smaller players. Production is now oriented towards producing a wide range of products including chipping, sawlogs and value added components.

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

Most of the major mill closures occurred in the 1970s and 1980s. However, adjustments are still occurring in some smaller mills and shifts have recently closed at other mills. When this occurs, the industry has attempted to help workers by offering redundancy or new employment in other locations.

Production facilities are becoming bigger, more centralised and utilise longer transport routes. While this has created more stable employment opportunities there are fewer jobs, and those

available generally require a greater skills base.

Some opportunity exists for increasing employment in the value adding parts of the industry. It appears, however, that the most potential for employment growth is in manufacturing. People consulted in this industry considered that, compared with traditional forest industries, manufacturing is not as well supported by government policy or the forest product industry.

## **Mining**

Mining is the major economic contributor in the region. While its presence is limited, 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 trajectory that increases capital investment in plant and equipment while employing fewer people.

## **Agriculture and Water Management**

Agriculture has followed clearing forest for timber. Since its heyday in the 1960s, this industry has been meeting challenges of increasing international competition through seeking economic efficiencies and increasing the size of operations. This has meant a decline in the rural population, particularly in the east of the RFA area and beyond. As a result, 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 has been increasing (e.g. erosion, soil acidification, salinisation, and loss of native vegetation). In response, there has been an increase in the role of landcare and community-based Integrated Catchment Management (ICM). The Water & Rivers Commission and other agencies have supported ICM. Agriculture WA 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 major economic contributor and a significant employer with further potential for growth. The south-west, with its matrix of forest and other land uses, is a valuable tourism resource. The industry e.g. Tourism South-West has a major focus on ecologically sustainable tourism.

## **Attitudes to the environment**

Over the past 30 years there have been large shifts in the community's attitudes towards the environment. Strong community based action combined with other pressures which influenced government policy has resulted in considerable areas of the forest being allocated as conservation related reserves.

Until the 1990s the conservation oriented public had largely driven community attitudinal change. In the 1990s timber industry workers 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 generally less of the resource being available for use.

## INCREASING CENTRALISATION

Centralisation has 2 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 sitting on the coast (e.g. in Shires including Augusta Margaret River, Busselton and Bunbury).

### **Forest Product Industries**

As described, the technological trajectory of the forest product industries has reduced the number of mills. Operations are becoming more centralised.

### **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. The population in the core RFA Shires (e.g. Manjimup, Bridgetown) has remained constant and decreased slightly in the eastern RFA Shires (e.g. Cranbrook, Boyup Brook). Given the direction of technology and operations, it is unlikely that the forest products industry can make a significant difference to these trends unless, as proposed here, 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 are under threat.

## ECONOMIC COMPETITION

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

The RFA process is examining economic decisions and employment in the timber processing industry, and compares forest use between industries. The direction of technology means that mechanised mills can process increasing amounts of wood at a few large processing centres using less workers. Similarly, the management of plantation industries is highly mechanised, mobile and not necessarily linked to local communities.

While there are benefits to the region and the major centres from this approach, the value to smaller local communities is uncertain. In response to this, some points to be considered in the RFA process are provided below.

### **Maximising employment opportunities within the forest product industry**

To maximise social benefit from the RFA it is important that questions such as - *which timber industry technology provides maximum local community employment while still remaining economically viable?*

### **Supporting forest related industries that provide local community employment**

It is important that local social benefit is maximised by identifying and supporting forest related industries that provide local community employment rather than jobs elsewhere.

### **BOUNDARY ISSUES**

Historically, government policy has been to hold forest in Crown reserves. Logging and agriculture have reduced native forest on private land. Paradoxically, the current demand for plantation timber and the impact of salinisation means that farming land is now being returned to (plantation) timber. Each of these events has had its social effects.

Most of the land across the RFA region is controlled under government policy by CALM. The policy on which CALM is structured places this agency in a unique position. It is the largest land owner and has significant control over several large industries (particularly forest products and tourism), but it has no charter to address the effect of its decisions on the communities throughout the region. Other major agencies that can affect the non-CALM lands in the region, whether by charter (Local Authorities, Ministry for Planning) or by choice (Agriculture WA), are directly involved in the consideration of the well-being of the communities that they effect.

### **REGIONAL SYNOPSIS - SOCIAL IMPACT**

From all the above, some conclusions can be drawn 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 forest product industry is unlikely to provide any additional employment in milling and forest management. There is some modest employment growth likely in value adding; however, the major opportunity for employment growth is in the manufacturing sector and other industries. This growth is likely to be in the major centres or on the coast.
- Most major structural adjustment in the forest product industry has already occurred. Nevertheless, there are some localised issues that affect specific towns.
- At a policy level, CALM and the forest product industry do not have the requirement to address the impact of their activities on towns that are within the RFA area. This is in contrast to a number of other agencies.

### **MITIGATION APPROACHES**

Mitigation is often narrowly viewed as giving money to offset change in communities. While one option, many others appear more appropriate for the circumstances that prevail in the RFA area. From the studies examined, thirteen 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 a project's impact
- Individual assistance - this is generally assistance to individuals impacted by a change and includes assistance with retraining, relocation, reemployment 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 how administrative and bureaucratic systems respond to communities
- Feedback planning - involving community representatives in the planning process (e.g. focussed discussions and community economic development)
- Support for communities - seeking to develop a working relationship with a community. The emphasis here is 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?* For example, CALM has responsibility for forest management, and in conjunction with the forest product industry shapes the direction of the development of the industry. In response to increasing community expectations for forest reserves, there are more national parks and conservation reserves. Water supply for Perth and mining interests are well supported and represented. Economic development, particularly tourism, is bringing jobs to the region. Most of the growth is on the coast and, to a certain extent, in the core RFA area. The forest product industry will continue to provide jobs in the major centres with some modest growth in employment opportunities through value adding and the plantation industries.

At a local level most of the major adjustments in the forest product industry and closure of towns occurred in the 1970s and 1980s. While some adjustment will still occur (e.g. in towns like Jarrahdale and Nannup), timber industry workers have experienced transfers and mill closures and have shown that they are able to adjust to change.

However, while there appear to be instances of adjustment, the potential for combined or *cumulative* impacts of change also need to be carefully examined.

In response to this, there are 2 main reasons to investigate mitigation. The first is excellence - CALM and the forest product industry should be able to present the world's best practice in conservation reserves, timber production *and* their relationship with the surrounding community. The second, related reason could be termed *social* sustainability - it is proposed that CALM and the forest product industry can play a key role in fostering regional growth and revitalising communities, particularly in the minor centres and those in the east of the RFA area.

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 much structural change has already occurred in the forest product industry, there are still cases where mills are closing and workers are made redundant. While this is occurring, resources are available within the existing government services to enhance retraining and business enterprise development opportunities. With relatively easy consultation between CALM, local authorities, forest product companies and the retraining/enterprise sections of the government, these services can be made available to redundant workers.

### **Supporting choice of technology**

CALM has shown, particularly in the 1987 Timber Strategy, that it can facilitate major change in the industry and influence the direction of policy development. Opportunities exist for CALM to analyse the economic effects of technological direction of the industry and set policy so that selected technology improves the employment opportunities in regional towns and addresses the trend for the reduction and centralisation of employment. Similarly, economic analysis could extend to examining ways to maximise local community economic benefit from the forests that surround towns.

### **Supporting local community economic development**

In the time frames and technological directions of the industry considered in this study, it would appear that much of the debate about the effect of timber availability on communities is a relatively short lived phenomenon. Rather than view loss of the timber resource (if it does occur from the RFA process) as an economic penalty for towns that must be off set, it is suggested that this presents an opportunity for CALM and the forest product industry to support regional and local economic development.

Two case studies outlined in the full report demonstrate how this could occur. The first is from Burnie in Tasmania where North Forest Pty. Ltd, the Greens, the Unions and the community turned a situation of major industry restructuring and extreme industrial disputation into several economic growth industries. The second case study is of the approach taken by Agriculture WA in its regional economic and community development project, 'Doing more with agriculture' that is part of its Sustainable Rural Development program. Agriculture WA is a particularly good example because it is, like CALM, a government agency that has significant effects on a large natural resource industry.

# Regional Social Profile: Assessment of Stakeholder Issues

## INTRODUCTION

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, we stress that this study (a) comprises only one component within the overall Social Assessment, (b) targets specific interests, (c) was not intended to measure representative opinion on particular issues. The primary aim 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 obtained from RFA management and combined into one list. Following a “snowballing” process, many additional names were included. Gaps in the existing 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 4 general, open-ended questions about forest use and management, and 2 further questions. These asked *In what area of the south-west do you have most interests or responsibility* (Town or Shire; Region or Subregion; State), and *What stakeholder group best represents your interests* (e.g. Local Government, Conservation, Timber, Mining and Tourism Industries, Farming, and Aboriginal etc.). Participants were asked to specify one answer for both questions. For most, this was generally possible, although several people had difficulty “forcing” themselves into one stakeholder grouping.

Time constraints dictated that, 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. A total of 253 (or 73.5%) of the 344 people listed were contacted. In all, data from 148 surveys or interviews were analysed.<sup>1</sup>

Please note that 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 groups 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.

To assist with ease of reading, the most frequently mentioned issues are summarised and presented under themes. These are **environment, forest management, forest users and**

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<sup>1</sup> Note that the number of stakeholders who took part was substantially higher than 148 as several interviews were attended by 2 or more people.

## **access, and employment / industry viability.**

### 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 land 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 reinstate 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 forestry plantations. Aesthetics 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.

**ADDITION** 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 1st and 2nd 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**

The Shire of Denmark recently passed a resolution opposing current logging practices. It sought to prevent logging in public native forests located within the shire boundaries, as clearfelling was deemed to have direct negative consequences on many industries.

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.

**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.

**Forest users 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 direct 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 blue gum plantations, and value adding has flooded the market and forced the price down.

### **Augusta-Margaret River**

**Environment issues** were: the international tourism significance of old growth forests and opposition to logging or mining in National Parks.

**Forest management issues** included ensuring maximum utilisation of native forest resources and allowing CALM to implement its timber strategies.

A key **forest users and access issue** was to prevent indiscriminate forest access due to increasing pressures and competing demands.

### **Bridgetown-Greenbushes**

The Shire of Bridgetown/Greenbushes was the first south-west shire to pass a resolution banning logging activities within the shire boundaries.

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

**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.

A **forest users and access issue** was to improve equity between old growth forest conservation and the timber industry

### **Bunbury**

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

**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.

**Forest users 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:** WA Farm Forestry Task Force identified 2,600 potential jobs in farm based forestry; the non competitive pricing structure between native timbers and imported timber discouraged greater expansion of plantation forestry, and over half of the workforce in some south-west towns are employed in the tourism industry.

### **Busselton**

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

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.

A key **forest users 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.

### **Collie / West Arthur / Williams**

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

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

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

### **Donnybrook / Capel / Dardanup**

**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.

**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.

A key **forest users 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 was 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.

## **Harvey**

An **environment issue** included the assertion that “the only reason we cut down a tree is that people want the wood”.

**Forest management issues** included the view that CALM do 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”.

**Employment / industry viability issues** included the assertion that the timber industry needs to remain sustainable and, if further resources were not locked up, it would continue to be so. 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).

## **Manjimup**

**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 utilised; it is “trendy to be green”; burning programs were contentious, and the limited wandoo forests must be conserved.

**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 than 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.

Issues relating to **forest users 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.

### **Murray / Waroona / Boddington**

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

**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 utilisation of forest resources was required and the use of jarrah forest residues for charcoal was opposed.

A key **forest user 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.

### **Nannup**

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

**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.

A **forest users 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.

### **Outer Metropolitan Perth**

An **environment issue** was the need to keep the understorey in natural conditions for the benefits of other industry groups.

**Forest management issues** included: 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 adequately manage National Parks.

**Forest users and access** 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.

### **Perth**

**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.

**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 WA's world class forest management; acknowledging that a native forest timber industry was not sustainable in the long term. Others however, commented the current forest management policy ensured sustainability and should be continued and extended.

**Forest users 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.

### **Serpentine-Jarrahdale**

A key **environment issue** was to conserve and protect the natural environment.

**Forest management issues** were: sustainable use of the forest was essential; maintain areas for tourism and recreation, and jarrah should only be used for high value end products.

A **forest users and access issue** was to manage and control forest recreation.

## 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 and then summarised in terms of shire area (or combination of areas). Only examples are given and a full report of issues is beyond the scope of this paper. General findings are discussed first.

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 like "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 like 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 change in the soil's ability to sustain forests were noted.

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 are recorded and protected. CALM, it was stated, needs to address this.

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 cop 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 above points, 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.

Relating to old growth areas, many nominated specific forest blocks such as Giblett, Sharpe and Hawke. Reasons are discussed below - see Manjimup Shire issues.

## CONCERN AREAS BY SHIRE

### **Albany / Denmark / Plantagenet / Cranbrook**

All public native forest areas in Denmark Shire - Logging will have negative impacts.

Sheep Wash Block / Reserve - Needs to be properly managed and harvested.

Reserves in the Great Southern region - Aboriginal access is/could be an issue.

### **Augusta-Margaret River**

Bramley Block - Increasing pressure for access. Further logging would cause a public outcry.

Boranup Forest and whole national park system along the coast.

### **Bridgetown-Greenbushes**

Areas of remnant vegetation in the wheatbelt - Very rare forests continuing to disappear. Concerned about the general connection of bush for maximising biodiversity values.

Small pocket of virgin jarrah on the Grimwade - Lowden road - should be left alone.

Hester block - Less ecological value, but of huge value due to lifestyle, town proximity and tourism potential. There is no national park within 40 kilometres of Bridgetown or the Blackwood River. Hester Brook is also a major contributor to salinity in the Blackwood River.

Hester - Should be logged and allowed to regenerate. It has no value other than emotional value and there are better areas to preserve as the "backdrop" to Bridgetown.

Dalgarup - Magnificent area but Jarrah Park is just a picnic site with no conservation status.

Kingston - Contains 5 endangered species and is the only heritage listed area that is now on logging prescription. Also adjoins Perup which is a key nature conservation reserve.

Kerr - The last unlogged block.

### **Bunbury**

Areas of tuart and tingle forest not under state management - Clearing/degradation risk.

State forest near Collie - Moves to secure areas will have impacts on the coal mining industry.

Sunklands - 10,000 hectares were locked up in 1997 without industry input.

Forest blocks currently under green protest - They bash and lie about the industry.

Forest area around Wellington Weir and the Collie River - Increased community pressure.

Areas like Dryandra forest - Should prevent further fragmentation of remnant vegetation.

### **Busselton**

St John's Brood and Cambray Blocks - Both were nominated as high conservation value.

Chapman Brook (South of Margaret River) - Subdivision and clearing of native vegetation.

Tuart forest - Ludlow - Lack of regeneration and weed control. Need an ongoing plan.

### **Collie / West Arthur / Williams**

The coal basin - During preparation of new mines clearing may not have been managed as effectively as possible. There is also dieback and forests are not regenerating well.

Lowden and remaining virgin jarrah forest - Last chance to preserve bits of the "real bush".

Areas around Glen Mervyn Dam - excessive logging and clearing appears to have occurred.

### **Donnybrook / Capel / Dardanup**

Dardanup block and also Lowden, Davis, Boyanup and Donnybrook - They are close to Bunbury and other towns and, as such, there is a lot of pressure on them and misuse.

Dardanup and the block behind Burekup - High conservation / biodiversity value.

Ludlow Tuart Forest - It is being poorly managed.

### **Harvey**

Lane Poole Reserve - There is a major dieback problem because the forest hasn't been burnt. It will die completely if stays locked up.

Dwellingup, including Holmes block - Any logging was to be a thinning operation. Murray shire now say "no harvesting within 3 kilometres of town". Along with the few ecotourism operations everybody "jumps on the bandwagon".

### **Manjimup**

#### Icons

People in this Shire frequently mentioned Giblett block (and other high profile "icons" of the

region (including Hawke, Sharpe, Jane, Charley and Beavis). Summarised comments included:

- Too precious to destroy; scenic beauty should be preserved;
- The threat of logging in these areas is reducing areas suitable for tourism;
- Areas including Pemberton do not have enough forested areas in reserve;
- The long term effects of clearfelling are unknown and Giblett is too important to give to just one interest group;
- The National Estate listing is a surrogate for forest reservation and this is causing community conflict.

Notably, it was also stated that Giblett, Sharpe and Hawke should have been allowed to be logged as in CALM's management plan. Other areas would not then have needed to be brought forward for logging.

Next, a common proposal was for the creation of the "Greater Beedelup National Park" which would include Giblett, the existing nature reserve and surrounding high conservation value heritage or interim listed karri forest areas (about 30,000 hectares). It was seen, for example, that Beedelup is currently not ecologically sustainable, and that a broader area was needed because this is "the only resource base left to provide nature-based tourism in the future". Giblett was said to form the best stand of karri left in the state, whereas diversity is not retained in Warren or Beedelup National Parks.

Interestingly, the formation of the Shannon National Park was questioned. Some believed the establishment of the park was a political decision with little concern for the community and no scientific basis. It was also seen as a "wasted" and visually unattractive area with little tourism value. One person noted that while they were told to "go to Shannon" (because there are no National Parks around Northcliffe), a third is sand dunes, a third is swamp and half the old growth had been logged.

Further, the decision to create the National Park has left the timber industry "nowhere to go". A suggestion was that, to ensure Giblett and Hawke are removed from timber production, Shannon could be reassessed as a trade off.

As stated, Shannon has degraded areas that could benefit from silviculture while Giblett and Hawke have large contiguous areas of mature trees that deserve protection.

#### Other Areas

Areas around Northcliffe - forested areas such as Jane and Muirillup are very important.

Lake Jasper - Hugely significant. A meeting place for Noongars and has aboriginal sites.

Forests around Walpole, including Sharpe block - Excellent old growth native forest.

Mount Franklin National Park and Deep River environs - Conservation reserves have been used as burn buffer zones for adjacent regenerating forest with fire exclusion status.

Kingston forest and contiguous areas (e.g. Winnejup, Warrup). Has high conservation value.

Forest areas around Pemberton - Tourism industry very important.

Road Reserves - There is a lack of a buffer zone on road reserves which is unattractive and detrimental to tourism (e.g. between Bridgetown and Balingup).

Sharpe - Still a nice piece of forest. There was no need to close it off to the public to log and remove from the pristine list. It is a good block close to Walpole and good for future tourism.

Sharpe and Deep blocks - A beautiful area with mixed species. The best example of unlogged forest in the south-west that can take off pressure on the wilderness zone on the south coast.

Dordagup and Poole - Represent the remaining old growth karri and jarrah in this area and should be permanently reserved. They could form the "Quinninup Conservation Park".

Ordinance, Peak and Rocky - High wilderness values. Deep River is close to Walpole. Have lost "Wild River" experience. Only a few trees are left on either side.

Jarrah areas between Walpole and Muir Highway - A testament to bad management.

Manjimup - There is no old growth forest around the town.

### **Murray / Waroona / Boddington**

Areas close to Dwellingup - Extensive logging without community consultation.

Provision of a green belt around Dwellingup - To preserve tourism value and economic base.

Holmes block - Thinning of the forest by CALM does not recognise significance of a green belt buffer around Dwellingup and the tourist route between Dwellingup and Boddington.

Areas with heritage listing on the National State Register - Do not exclude mining although there would be a negative community perception if mining was to go ahead.

### **Perth and Outer Metropolitan**

Intermediate rainfall zone of the forest containing important wetlands - the wetlands require additional protection.

Loss of wandoo forest - Has caused severe depletion in bee hive production.

Old growth forests, including tuart, tingle and wandoo - All are intrinsically important.

Non-reserved heritage areas - Public believe they are not compatible with timber harvesting.

Areas covered by Native Title claims - Native Title areas have not yet been identified.

State forest areas around Stirling Dam - This is a magnificent huge jarrah forest.

The area between Nannup and Busselton - High level of dieback disease.

Boddington area - This forest area needs thinning to promote jarrah growth.

Tuart Forest - This needs protection as it is a limited estate, scenic and on tourist routes.

Sunkland Forest - Convert degraded areas to plantations in exchange for forest elsewhere.

Greater Kingston area (6 or 7 blocks north east of Manjimup) - Critical for conservation.

Forest near Margaret River - It's the last bit left for the community.

### **Serpentine-Jarrahdale**

Jarrahdale forest, in state forest near Perth. Now structurally different than at time of settlement.

Gordon block - Gets heavy recreation use.

All areas of forest around Serpentine-Jarrahdale - The size of old growth forest is very small.

Areas of adjoining Perth's eastern suburbs (e.g. Mundaring) - Massive increase in public use.

## **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 upon 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 put significant capital investments into 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 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 world class management system” to “CALM has failed to fully consider issues such as biodiversity”.

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 a share of 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. The key word needing to be adhered to by all stakeholders is *accountability*. According to those surveyed, this would entail providing information on request, enabling public and professional scrutiny of forest related decision making and utilising 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 (discussed in more detail below). 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 (e.g. “prescribed burning and logging in road reserves”).

As can be appreciated, a major issue 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 Hester Block, for example, highlight different views about the inherent value of a forested area. In addition, given public concerns and 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.

As mentioned, there may well be many instances where both the timber industry and other forest dependent activities can amicably 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 (see below).

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. ). This view also stood as a recommendation in the Post Impact Studies Project.

In sum, it is suggested that an effort to move the debate away from its polarities and towards common ground is needed. While this sounds obvious, attempts should be made and shared groundrules set. We recommend a carefully facilitated approach that includes stakeholder input and is based on balance and partnership (e.g. see Hollick & Mitchell, 1991).<sup>2</sup> According to notions of fairness and equity, 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 (Syme, 1993).<sup>3</sup> This is consistent with the mitigation approach recommended in the Post Impact Studies Project.

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<sup>2</sup> Hollick, M and Mitchell, B (1991). Integrated Catchment Management in Western Australia: Background and Alternative Approaches. University of Western Australia, Centre for Water Research: Publication ED 606 MH.

<sup>3</sup> Syme, G J (1993). Are we on the Right Track? *Social Impact - The Social Impact Management Bulletin*, July.

# Regional Social Profile: 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 West Australian RFA region. The study was based on a random sample of 1,106 participants drawn from across 5 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** (consisting of the eastern portion of the RFA region from Talbot Brook to Mt Barker).

This approach allowed for comparisons across each of the 5 areas, and inferences drawn in relation to the population throughout the region. Telephone interviews assessed: 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.

### Forest Values

An analysis of 12 social value statements indicated significant geographic variation in the values attributed to native forests. Table 1 summarises the percentage of agreement in relation to each of the 12 statements within the regional population and across the 5 regional areas. There was significant geographic variation in social value systems towards native forests. This suggests that the development and implementation of forest policies will have to address regional differences.

Data analysis on the 12 items suggests that there are 3 primary groupings or “clusters” of values (See Table 1). They consist of 4 items that reflect concern for native forests, 3 that reflect the environmental value of native forests and 2 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 5 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 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
<b>ENVIRONMENTAL CONCERN</b>						
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
<b>Composite Index</b>	<b>1.98</b>	<b>1.97</b>	<b>1.87</b>	<b>2.07</b>	<b>2.15</b>	<b>1.86</b>
<b>INTRINSIC VALUE</b>						
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
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
<b>Composite Index</b>	<b>1.64</b>	<b>1.64</b>	<b>1.57</b>	<b>1.81</b>	<b>1.74</b>	<b>1.55</b>
<b>VALUE CONFLICT</b>						
I [do not] feel torn between the need for jobs and the need to preserve native forests in WA	42.4	32.1	44.5	33.6	44.2	49.8
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
<b>Composite Index Score</b>	<b>2.44</b>	<b>2.57</b>	<b>2.41</b>	<b>2.53</b>	<b>2.37</b>	<b>2.31</b>
<b>TOURISM DEPENDENCY</b>						
Tourism is very important in the area in which I live	81.4	72.6	78.5	66.8	92.2	96.4
<b>TIMBER &amp; LOGGING INDUSTRY DEPENDENCY</b>						
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 do not affect me greatly	46.4	38.6	50.2	45.5	48.3	52.3

Note: Values in italics indicate a statistically significant difference across regional areas.

Composite index scores vary between 1.0 (high) and 4.0 (low) and are the mean of the items forming the index. Source: Environment & Behaviour (1997).

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 percent indicated they had visited native forests within the last 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 Forest National Park near Perth, an analysis of the locations of native forests visited within the last 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 percent 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 2 core issues the community believed should be addressed were (a) the conservation of forest areas for future generations and (b) 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 to better control dieback and other diseases.

### **Concern for Native Forests**

Fifty-three percent indicated they were concerned about specific places in WA 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 last 2 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 percent 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. Interestingly 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 percent 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.

### **Regional Social Profile: 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).<sup>4</sup> and Goepfinger and Baglioni (1985)<sup>5</sup>, more than twenty measures were identified and analysed for each of 44 towns throughout 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 dependents, 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 an assessment of the resources existing within a particular community. An index of community vitality is determined by assessing for each town the numbers of: educational institutions, medical and other agencies, forest industries, other businesses, councillors, community groups, annual events, and awards won.

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<sup>4</sup> Cottrell, L S (1976). Further Explorations in Social Psychiatry ed; Wilson, R H. and Leighton, A H. New York, Basic Books.

<sup>5</sup> Goepfinger, J and Baglioni, A J (1985). Community Competence: A Positive Approach to Needs Assessment. *American Journal of Community Psychology*: 507-523

At this stage, all measures were weighted equally (i.e. no one measure was rated as more significant than another) and combined to produce a CSI for each town in the RFA region. The CSI produces a score between 0 and 1, with 1 indicating a higher sensitivity to change.

It is important to note that the CSI is not intended for use as a stand alone measure. It will be combined with information gathered by the Forest Community Coordinators during surveys and interviews with stakeholder groups, and from the industry expenditure surveys etc. to suggest towns that could be most vulnerable at responding to change. Further, it is most likely that some measures are more indicative of a community's ability to respond to change than others. It is suggested the most influential indicators are likely to be forest industry employment, distance from urban centres, ratio of dependents and the extent of business and services in a town.

Initial data analysis revealed small differences between towns. We have therefore decided not to rate towns according to their degree of sensitivity to change at this stage. Rather, to ensure the CSI results are valid, community feedback and expert advice will be sought during the social impact assessment phase following the release of the RFA Options Report. The key indicators within the overall CSI measure can then be ranked and rated in terms of importance.

## Forest Industry Assessment

### OBJECTIVES

The core objectives of this study were to (a) 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, (b) identify the town location and number of timber industry employees resident in the region, (c) develop a social profile of timber industry employees, and (d) 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 (a) surveys of timber industry and related businesses and their employees and surveys of tourism and mining industries, and (b) 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.

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.

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