


Thinking About Forests
Community Attitudes Towards Forests in
New South Wales
April 1998



THINKING ABOUT FORESTS

COMMUNITY ATTITUDES TOWARDS FORESTS
IN NEW SOUTH WALES

**DEPARTMENT OF GEOGRAPHY
UNIVERSITY OF SYDNEY**

**A report undertaken for the NSW CRA/RFA Steering
Committee
project number NE 02/ES
April 1998**

Report Status

This report has been prepared as a working paper for the NSW CRA/RFA Steering Committee under the direction of the Economic and Social Technical Committee. It is recognised that it may contain errors that require correction but it is released to be consistent with the principle that information related to the comprehensive regional assessment process in New South Wales will be made publicly available.

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

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Thinking About Forests

Community Attitudes Towards Forests in New South Wales

Report 5 in Community Attitudes Towards Forests Series

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Acronyms Used in 'Thinking About Forests' Report Series

ABS -	Australian Bureau of Statistics
AES -	Australian Electoral Studies
ANOP -	Australian National Opinion Polls
CRA -	Comprehensive Regional Assessment
EPA -	Environment Protection Authority
GIS -	Geographic Information System
LNE -	Lower North East
RACAC -	Resource and Conservation Assessment Council
RFA -	Regional Forest Agreement
SAU -	Social Assessment Unit
UNE -	Upper North East

1. Introduction and Aims

The central aim of this report is to present and analyse the results of a community attitudes survey that focused upon forest uses and values. The survey was conducted as part of the current RFA process being negotiated in NSW. Five separate reports were commissioned, one for each of the four key CRA regions, and a final report summarising trends throughout the State. This report displays the results of 2000 phone calls randomly distributed throughout the State. An extra 1000 phone calls were made to specific regions, the results of which have been collated in Reports 1 to 4.

The main aims of the survey were to assess social values relating to forest use and to provide the data in a form that could be geographically referenced and entered into a GIS program. The following five key subject areas were explored:

- a) Demographic attributes of the respondents
- b) Employment details of the respondents
- c) Respondents opinions towards social and environmental issues
- d) Respondents current personal uses and desired future uses of forested land
- e) The values respondents invest in forested land

2. Multiple Use Forestry

Australia, along with the majority of Western nations, is progressively developing into what has become known as a post-industrial society. Both the economy and levels of employment have become increasingly dependent upon growth in the information and service industries with a corresponding decline in the relative reliance upon primary sector employment and income. The majority of the population resides in urban areas and have become removed from the needs and practices of primary producers. It is predominantly from within these urban centers that new attitudes and appreciations of Australian landscapes and environments have been developed (see Bolton 1992).

This growing interest in conservation has put tremendous pressure on some primary producers, leading to well publicised and often colourful conflicts between resource managers and environmentalists. The public has become interested in environmental matters and it has been well documented that environmental concerns and policies has been vital in influencing the result of at least one Federal election (see Bean et al 1990). The move away from purely utilitarian perspectives of nature to more romantic and symbolic appreciations of nature have had tremendous impacts upon the forestry industry. Forests now need to be managed to satisfy the symbolic values society invests in forested land as well as their more obvious commercial value. Multiple-use forest management needs to incorporate social, environmental, and economic considerations if it is going to continue to satisfy and serve the Australian population (see Koch and Kennedy 1991). This report aims to investigate how the people of New South Wales perceive and value these three primary areas of forest management.

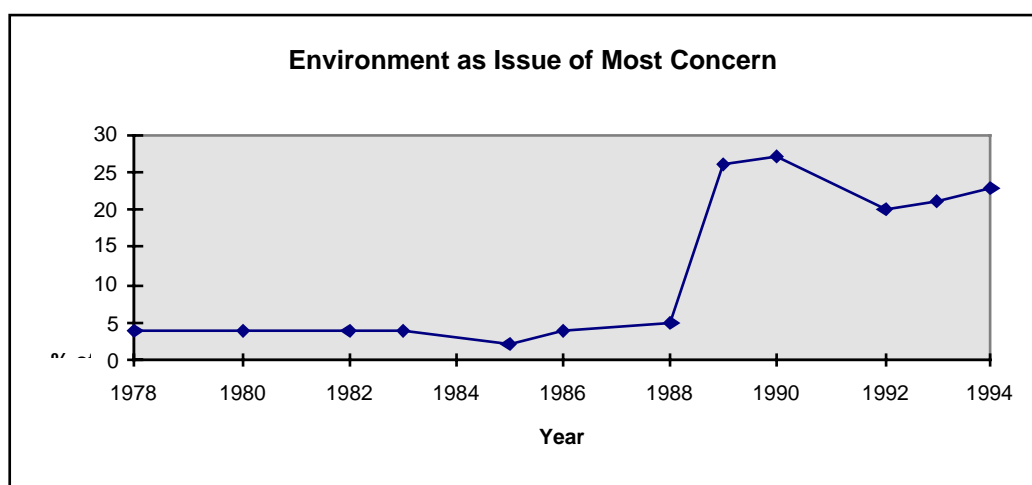
3. Related Surveys

The popular rise of environmental interest in the wider community has attracted the attention of politicians and academics and resulted in a number of environment oriented surveys being conducted. Whilst these surveys invariably concentrate upon different dimensions of people's attitudes towards the environment making comparison difficult, there are normally two sections that may be compared and are useful for this report. These sections are the overall ranking of economic, social and environmental values, and the structure of people's environmental concern.

3.1 Ranking social, economic and environmental values

A standard question in past surveys has been to ask people to indicate from a list of issues which issues they are most concerned about. The environment forms a single category and is contrasted with competing economic and social values. Figure 1 shows the results of national surveys investigating the importance of environmental values. Slight changes in wording occurred after the 1986 survey but cannot be attributed to the rapid upsurge of concern in 1989 onwards. It is more likely that the massive media coverage given to global issues such as the greenhouse effect and the ozone 'hole' during this period raised the profile of the 'environment' as an important issue amongst the community (Crook and Pakulski 1995, Bell 1994). Whilst media attention has dropped since then, public interest and concern for environmental issues has not. What Figure 1 shows is that almost 25% of the Australian population believe environmental issues are of more concern than other purely social or economic issues, symbolising the rise in importance of environmental values. However it should be noted that traditional concerns like health, education and employment still tend attract more responses than the environment.

Figure 1



Adapted from: Crook and Pakulski 1995 and EPA 1994¹

3.2 Structure of environmental concern

Researchers have tried to establish the structure of community concern. Two methods have been used, the first is a closed format question that asks respondents to indicate from a set list which environmental issues they are most concerned about. Table 1 shows national trends found through this type of surveying which identifies issues relating to forests to be of equal importance as greenhouse/ozone type issues, being second only to pollution as the community's main concern. It should be noted that comparing surveys in this way is problematic due to changes in wording and research techniques.

¹ 1994 figure derived from NSW population only. 1975-86 question was about the problem of most concern, 1988-94 question was about the most important issue the government should do something about.

Table 1: Primary Environmental Concern (Percentage of Respondents)

Environmental Issue	AES ² 1990	ANOP ³ 1991	AES ² 1993	ANOP ³ 1993
Pollution	40	51	38	56
Industrial Waste	10	8	9	12
Greenhouse / Ozone	19	10	16	9
Forest related issues	10	19	12	19
Wildlife destruction	5	N/a	7	n/a
Land degradation	9	8	7	12

Alternatively, surveys can allow respondents to make more than one choice, indicating whether respondents were concerned about the issue at all, rather than having to establish which is the most important issue (see Table 2). Again forest issues ranked highly, being ranked as the second most important issue in a national 1992 poll.

Table 2 : Multiple environmental concerns (Percentage of Respondents)

Issue	ABS National 1992 ⁴
Air Pollution	40
Forest related issues	33
Ocean Pollution	32
Freshwater pollution	30
Ozone	29
Industrial waste	21
Loss of species	19
Greenhouse	17
Land Degradation	15

Forests rank highly in the structure of people's environmental concerns. It is within this context, that the following community attitudes survey results will be analysed

² AES - Australian Electoral Studies - source Crook and Pakulski 1995

³ ANOP - Australian National Opinion Polls - source Lothian 1994

⁴ ABS - Australian Bureau of Statistics - source Lothian 1994

4. Methodology

4.1 Questionnaire Design

The questionnaire was divided into five sections to investigate the five original aims of the report:

- a) Demographic attributes of the respondents
- b) Employment details of the respondents
- c) Respondents opinions towards social and environmental issues
- d) Respondents current personal uses and desired future uses of forested land
- e) The values respondents invest in forested land

The questionnaire design consisted of four main phases:

- Comments submitted by members of the Social and Economic Technical Committee were collected and a brief literature review was carried out. Basic questions were considered and tested through a focus group interview session. The results of these three procedures were used to draft the base questionnaire which took the consultancy aims as its rationale for including or excluding questions.
- The base questionnaire was circulated amongst committee members for review and comments. A modified questionnaire was designed to incorporate the committee's comments
- The modified questionnaire was recirculated amongst the committee and a meeting was held on 15/7/97 where further changes were made.
- Twenty New South Wales residents were interviewed on 15/7/97 and problem spots identified. Final adjustments were made to the questionnaire liaising with representatives from RACAC and the SAU.

The final questionnaire covered standard demographic variables whilst investigating the economic, environmental and social dimensions of people's opinions about forest use and values. Restrictions were placed upon the questionnaire structure due to the telephone interview format, the main restrictions being on the time taken to conduct the survey which was limited to fifteen minutes, and a restriction in the complexity of the questions due to the verbal communication medium. The final questionnaire is contained in Appendix 1.

4.2 Site Selection

The sample selection was drawn from all postcode areas in NSW. Postcodes were used to mark the geographic location of the respondents as this is a common geographic unit used in most GIS programs, delineating smaller regional units than other data aggregation methods such as local government areas.

4.3 Telephone Number Selection

For the five reports in this project series, 3000 telephone numbers were randomly generated from an electronic White Pages database across NSW. Approximately 1000 of these numbers were drawn from the 4 primary CRA regions (Eden, South, Upper North East, Lower North East), delineating a geographic bias towards target areas for this project. For further detail of the analysis of responses in each of these regions, see Reports 1 to 4 in the Community Attitudes Towards Forest Series.

The aim of this report is to provide an analysis of the results of the remaining 2000 attempted surveys across NSW, in effect removing the geographic bias from the results. As a consequence, the number of responses drawn from each CRA region is significantly less than those contained in Reports 1 to 4, given the highly metropolitan population in non-CRA region NSW. The total

number of phone calls to each CRA region without any geographic bias and incorporated into this report is as follows: Eden 10, Lower North East 312, Upper North East 100, and South 65. Map 1 shows the response rate from each of these regional samples. The final sample used in this report represents 2000 calls to the NSW region.

4.4 Interview Procedure

Thirty interviewers were employed in this study. Each interviewer was allocated a list of randomly generated phone numbers which they were to call between 6:00 pm and 9:00 pm on weeknights and between 10:00 am and 9:00 pm on weekends. Phone calls were carried out between 17/7/97 and 2/8/97. If no-one answered the telephone at the first attempt, the phone number was called two more times with a minimum interval of two hours between the calls. If after the third call no-one answered, the call was considered a rejection.

If an answering machine was operating the interviewer read out a standardised statement informing members of the household about the objectives of the interview and indicated that the household would be called again in the next few days. No more messages were left on subsequent calls and the number was considered a rejection after three calls.

If the call was answered but the respondent did not wish to participate, interviewers asked whether it would be appropriate to call back at another time, or alternatively if anyone else in the household would be interested in participating. As asking other members of the house to participate potentially compromises the random selection criteria interviewers recorded the amount of respondents located through this technique.

The only criteria for successful phone calls was that the respondents be 17 years of age or over. For 'closed' questions interviewers were instructed to indicate on the questionnaire which of the selected options the respondent had chosen. For open-ended questions the interviewer recorded the response of the respondent by entering one of the preselected codes on the questionnaire sheet, or if the response did not fit any of these codes the response was written into the question sheet for later coding and analysis. If the respondent was unwilling to answer any of the questions they were not required or encouraged to do so.

4.5 Response Rate

Of the 2000 phone calls made throughout New South Wales 476 successful interviews were carried out. This is a response rate of 23.8 percent. Very few contacts were made with secondary respondents and their responses were not thought to effect the results in any significant way.

Insert Map

5.A - Demographic Characteristics of Sample

Introduction

The demographic section of the questionnaire investigated general characteristics of the group being interviewed and was contrasted with 1991 Census material for New South Wales. This allows judgements to be made about the extent to which the NSW sample represents the NSW population. The second part of the section was topic-specific, investigating the extent to which the proximity people have to forest issues influences their opinion, and is cross referenced in section 6.F - Demographic Distribution of Key Responses.

5.A.1 Demographic Distribution of Sample Group

Table 3 summarises the results of the key demographic questions.

Table 3 : Key Demographic Variables

SAMPLE PROFILE (N=476)

	<i>Frequency</i> ⁵	<i>Percentage</i> ⁶		<i>Frequency</i>	<i>Percentage</i>
GENDER:			CHILDREN:		
Male	193	40.5	Yes	311	65.9
Female	272	57.1	No	161	34.1
AGE GROUPS:			LANGUAGE SPOKEN AT HOME:		
17-24	67	14.2	English	451	94.7
25-34	75	15.9	Non-English	25	5.3
35-44	105	22.2			
45-54	90	19	ABORIGINAL OR TORRES STRAIT ISLANDER IDENTITY:		
55-64	53	11.2	Yes	21	4.5
65+	83	17.5	No	447	95.5

Gender

There was gender bias with females (57.1%) being disproportionately represented in the sample group when compared to 1991 Census figures (50.1%). Possible reasons for this include the tendency for higher rejection rates by males or alternatively indicate that females initially answered the phone call more often than males.

Age of Respondents

The age profile of the NSW sample is similar to age breakdowns throughout the state. The 35-44 year old category was the most highly represented category in both state and sample analysis whilst those over 65 years of age also ranked highly. The only group that was significantly over-represented in the sample was those in the 45-55 year age group.

⁵ Frequencies do not necessarily add up to 476 due to incomplete values in some survey responses.

⁶ All percentages given in this report are valid percentages.

Figure 2

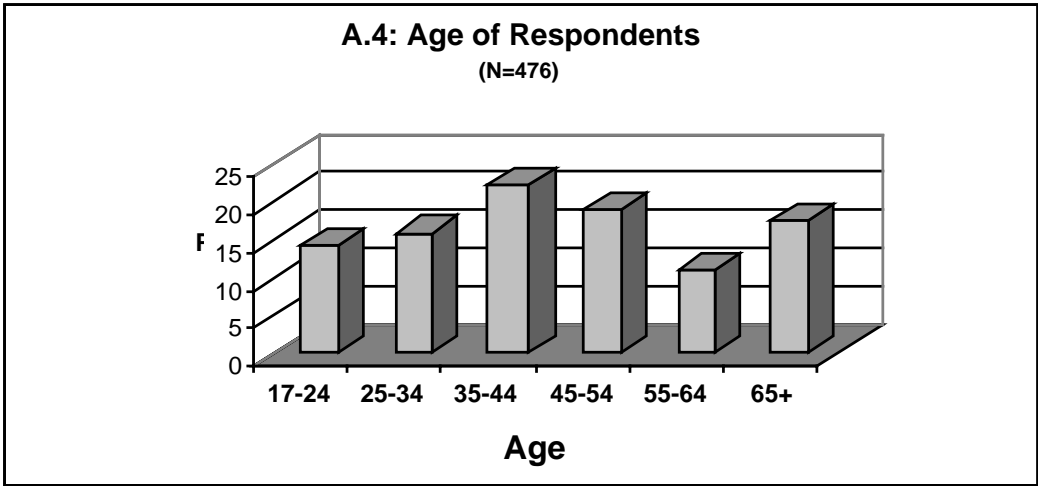


Table 4

Comparison of Age between 1991 Census Data of all NSW and NSW sample ⁷ (N=476)		
	1991 Census	NSW Sample
17-24	9.3	14.2
25-34	13.8	15.9
35-44	15.2	22.2
45-54	10.3	19
55-64	9.9	11.2
65+	15	17.5

Parents

As Table 3 shows, 65.9 percent of the respondents were parents. This variable could potentially affect people’s opinions on subjects involving intergenerational equity.

Language Spoken at Home

Ninety five percent of the respondents indicated that they spoke English at home, whilst 5 percent indicated they spoke other languages at home. This is significantly lower than 1991 Census data in which 16 percent of the population reported speaking another language at home and reveals a potential problem with telephone interviewing methodologies. People with non-English speaking backgrounds may have a different level of access to forest debates and different opinions about the issues.

Aboriginal and Torres Strait Islander Status

There was an over-representation of people who consider themselves to be Aboriginal or Torres Strait Islanders (4.5%) when compared to Census data (1.2%).

5.A.2 Proximity to Forest Issues

Figure 3 indicates the sample’s responses to three key questions gauging their proximity and awareness of key issues relating to forests, such as: their concern for, and awareness of, environmental/conservation issues represented by their membership of or subscription to environmental/conservation groups; their awareness of forest related industries represented by their employment in forest related industries; and their concern for, and awareness of, labour related issues represented by their membership of a trade union.

⁷ Census data includes whole NSW population whilst report data represents only those over 16 years of age.

Figure 3

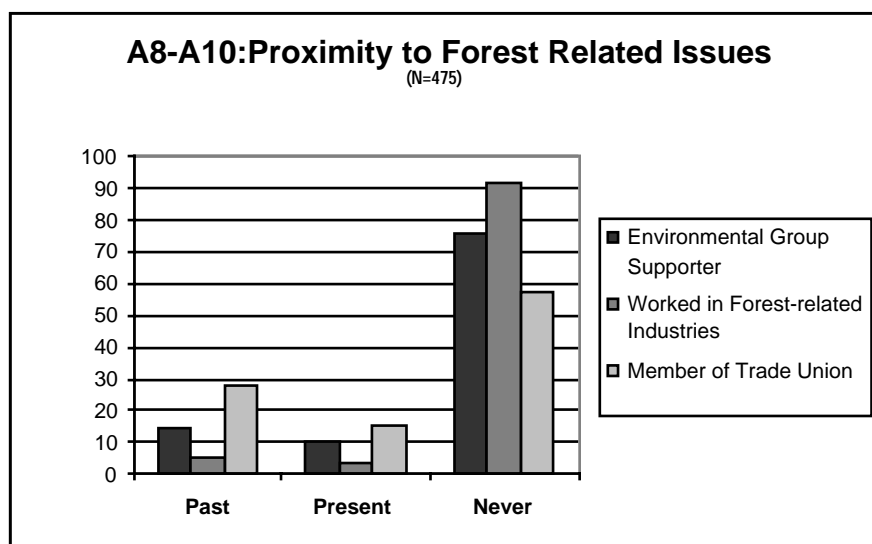


Table 5

Proximity to Forest Related Issues (N=475)						
	Past		Present		Never	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Member of or Subscriber to Environmental or Conservation Group	67	14.2	47	9.9	359	75.9
Worked in Forest Related Industries	25	5.3	14	2.9	436	91.8
Member of a Trade Union	130	27.7	71	15.1	269	57.2

The data presented in Table 5 and Figure 3 indicate that 75.9 percent of respondents have never been members or subscribers to environmental or conservation groups, with 24.1 percent of people reporting that they have been (14.2%) or are presently (9.9%) members or subscribers to environmental or conservation groups.

Ninety two percent of people reported that they have never been employed in forest related industries, while only 2.9 percent indicated that they were currently employed in forest related industries. Five percent of people had been employed in these industries in the past. No specification was supplied about the term 'forest related industries' with positive respondents potentially being employed in the economic, social or conservation sides of these industries.

Fifty seven percent of respondents reported that they have never been a member of a trade union. Forty three percent have been (27.7%) or are presently (15.1%) members of a trade union.

5.B - Education and Employment

Introduction

Respondents were asked about the level of education they attained, their income level, and their occupation. The level of education and occupation type was compared to 1991 Census data.

Level of Schooling

Figure 4 and Table 6 indicate the responses to a question regarding the highest level of schooling attained by each respondent. Seventy eight percent of respondents had either attained the Year 10 school certificate (or equivalent) or higher, with the remainder of the respondents achieving lower levels of schooling.

Figure 4

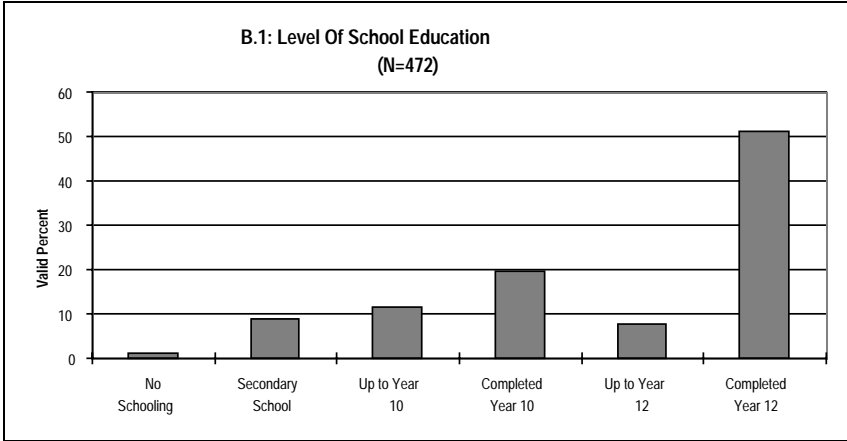


Table 6

Level of School Education (N=472)		
	<i>Frequency</i>	<i>Percentage</i>
No Schooling	5	1.1
Secondary School	42	8.9
Up to Year 10	55	11.7
Completed Year 10	92	19.5
Up to Year 12	36	7.6
Completed Year 12	242	51.3

Tertiary Education and Other Qualifications

Respondents were asked about other tertiary, trade and industry qualifications they had attained, the frequencies and percentages are given in Table 7. Figure 5 shows the responses, indicating 25.1% of all respondents had not attained any formal qualifications other than schooling. This is substantially lower than 1991 Census figures for the same region that indicated 59.2% of the population had no formal qualifications after schooling. Census data also revealed that only 12.8 percent of the NSW population had University qualifications whereas in the sample group 38% had University degrees or diplomas. This indicates that our sample is biased towards the more educated segments of the community with a disproportionate amount of less educated people declining to be interviewed.

Figure 5

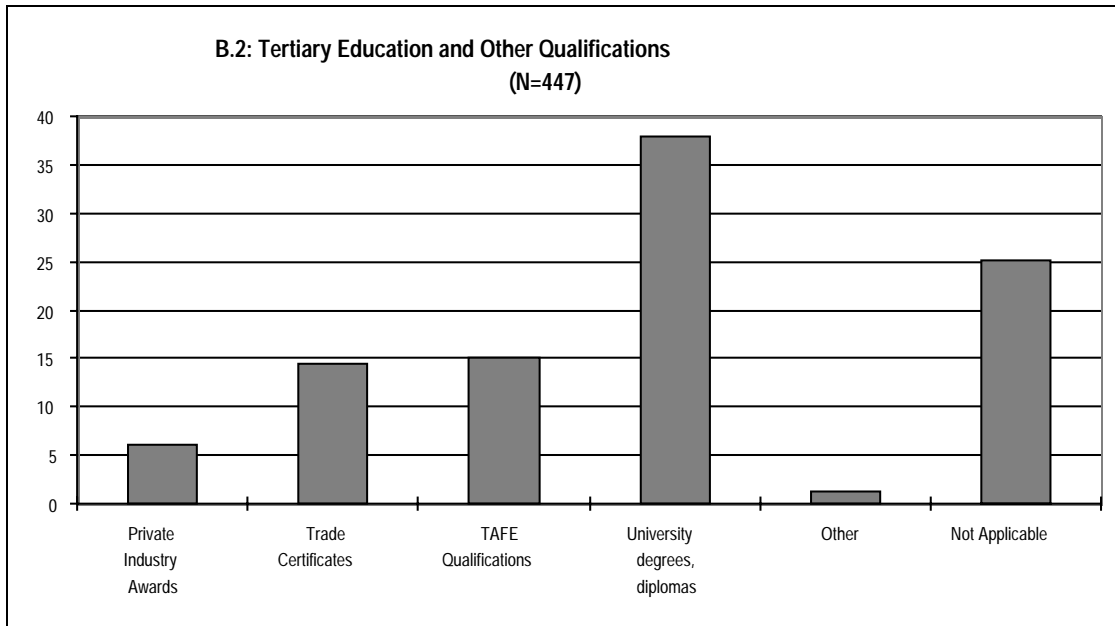


Table 7

Tertiary Education and Other Qualifications (N=447)		
	<i>Frequency</i>	<i>Percentage</i>
Private Industry Awards	27	6
Trade Certificates	65	14.5
TAFE Qualifications	67	15
University degrees, diplomas	170	38
Other	6	1.3
Not Applicable	112	25.1

Employment and Occupations

Forty percent of people who participated in the survey were not currently employed. Of the 40% who were unemployed 37 percent were aged 65 years or over. This reflects 1991 Census data that shows that 37 percent of the NSW population are not currently within the labour force, and a further 10.8 percent of the labour force are currently unemployed.

Figure 6

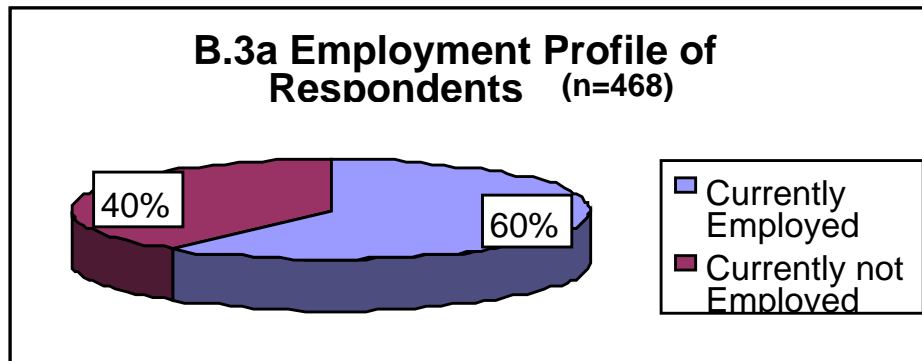
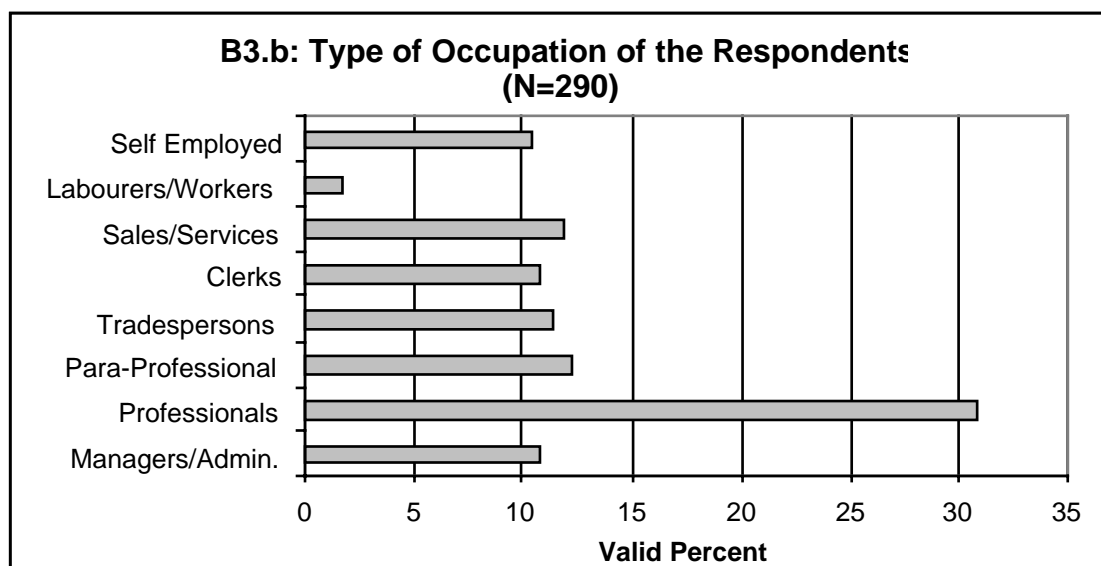


Table 8 and Figure 7 show the distribution of employed people according to the Australian Bureau of Statistics occupation categories⁸. A high percentage of people surveyed (30.9%) fall into the occupation category of 'professional' which is significantly higher than the 1991 Census distributions (12.1%). Para-professionals were also over-represented (12.2%, Census 6.6%), whilst clerks (10.8%, Census 15.8%) and more significantly, labourers and machine operators (1.7%, Census 19.1%) were both under-represented.

The debate about the effect of socio-economic status and educational levels upon people's environmental attitudes has led to little consensus amongst researchers (see for example Papadakis 1993, Cotgrove and Duff 1981). However it is possible that those who are highly educated, or of a high socio-economic status (both of whom are disproportionately represented in this survey) may show more concern for environmental issues than the general public.

Figure 7



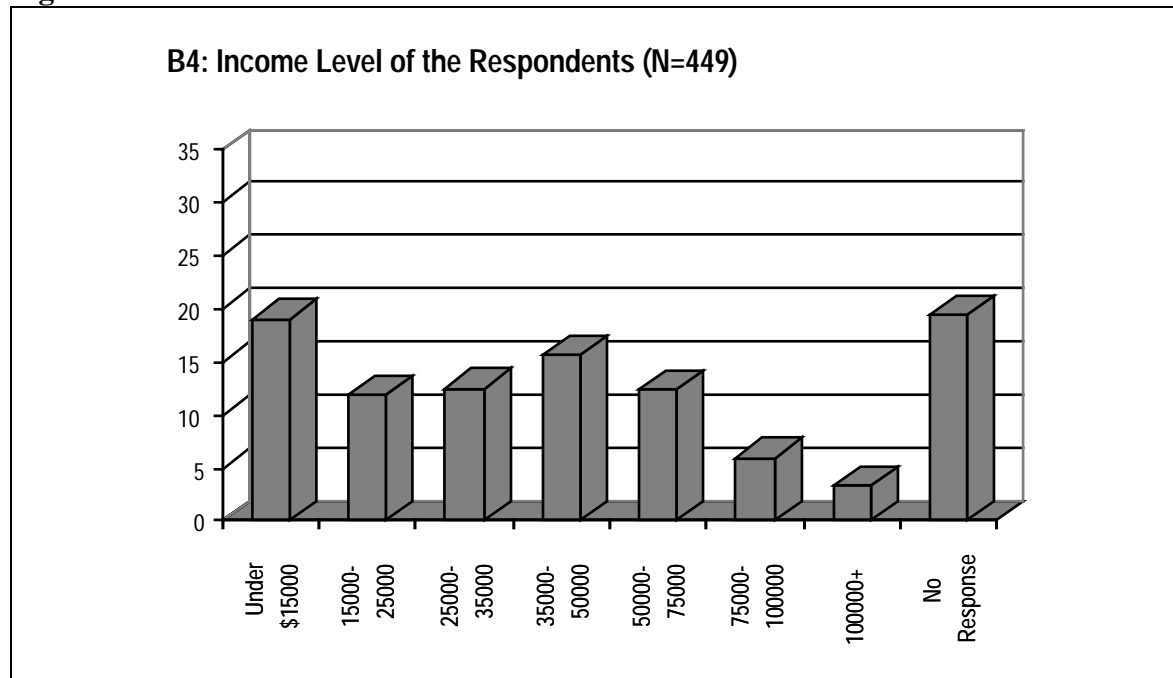
⁸ The category 'Self Employed' was included although it is not an ABS category. The ABS category 'Plant and Machine Operators and Drivers' was incorporated into 'Labourers and Related Workers' in this survey.

Table 8

Occupation Types of Respondents (N=290)		
	<i>Frequency</i>	<i>Percentage</i>
Managers and Administrators	31	10.8
Professionals	89	30.9
Para-professionals	35	12.2
Tradespersons	33	11.5
Clerks	31	10.8
Salespersons and personal service workers	34	11.8
Labourers and related workers	5	1.7
Self Employed	30	10.4

Income

We can see from Table 9 and Figure 8 that there is a relatively even distribution of income earners in the sample group. The most frequent category indicated by the sample group 'Under \$15000' reflecting the high number of people who are not currently employed. A significant percentage of the group did not respond (19.4%).

Figure 8**Table 9**

Income Levels of Respondents (N=449)		
	<i>Frequency</i>	<i>Percentage</i>
Under \$15000	85	19
15000-25000	53	11.8
25000-35000	56	12.5
35000-50000	70	15.6
50000-75000	55	12.3
75000-100000	27	6
100 000+	15	3.3
No response	87	19.4

5.C – Social and Environmental Issues

Introduction

In order to investigate how people think about general environmental issues four questions were asked investigating the extent and structure of their concern. The first question asked people to rank the importance of environmental issues when compared with other broad social and economic issues at an abstract level. The second question investigated the strength of people’s concern for environmental issues as a whole, whilst the third question investigated the structure of people’s concern for the environment. The last question looked at the strength and commitment people have for environmental issues by seeing how concern has been translated into behaviour.

Contemporary Social Issues

A list of seven contemporary social issues were read out to participants in the survey and they were asked to indicate which two issues they felt were of most importance to Australia at the present time. The list included: education, environment, the health system, unemployment, crime, promotion of economic growth, and discrimination.

Figure 9 and Table 10 indicate that ‘unemployment’ (ranked as one of the top two issues by 48% of people surveyed), education (39.1%) and the environment (38.7%) were the main issues people from the NSW sample were concerned about. The health system was the fourth most popular issue (32.6%) followed to a lesser extent by crime, promotion of economic growth and discrimination. When compared to a recent face to face survey commissioned by the New South Wales Environment Protection Authority (EPA 1994) which asked a similar question for the whole of NSW some differences become apparent. The EPA study found unemployment (50.4%), education (30.9%) and health (29%) as the three highest ranked issues whilst only 22.8% mentioned environment as one of their primary concerns. The sample group had a particularly high level of concern for the environment when compared to previous studies.

Figure 9

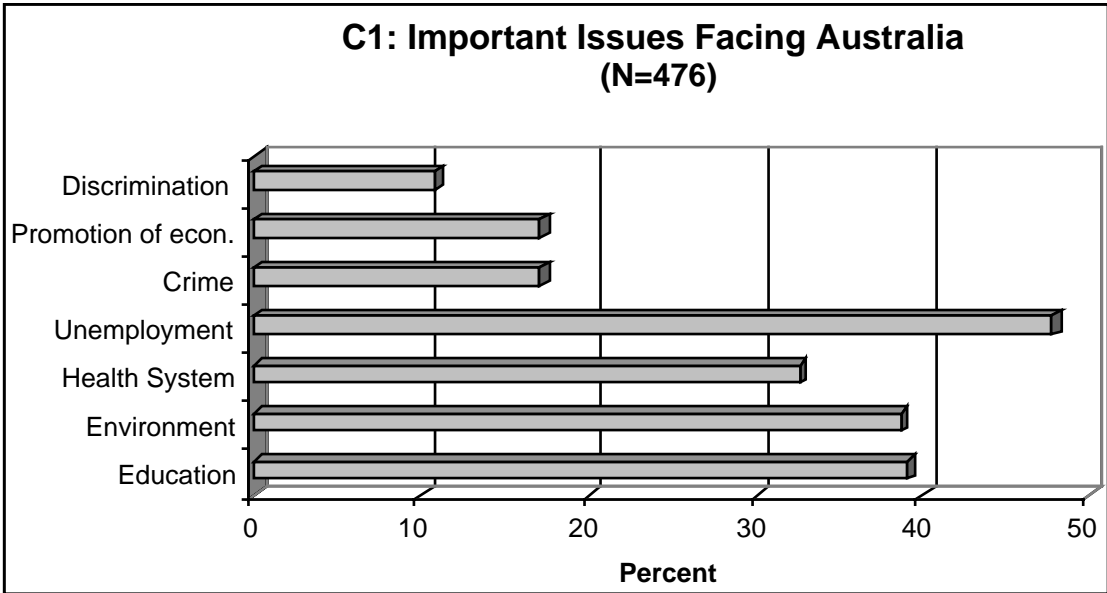


Table 10

Most Important Issues Facing Australia (N=476)		
	<i>Frequency</i>	<i>Percentage</i>
Discrimination	41	8.6
Promotion of Economic Growth	52	10.9
Crime	82	17.2
Unemployment	228	47.9
Health System	155	32.6
Environment	184	38.7
Education	186	39.1
Other	1	.2

Social Concern for the Environment

Of a list of three statements relating to the level of concern shown by society for the environment, respondents were asked to indicate which statement most closely matched their own attitude. Table 11 indicates that 73.7 percent of respondents felt that society doesn't show enough concern for the environment, while only 5.3 percent of people thought society shows too much concern for the environment. There is a high degree of concern and interest within the sample group towards environmental issues, with two thirds of the respondents indicating they would prefer to see more attention given to environmental values.

Table 11

Social Concern for the Environment (N=475)		
	<i>Frequency</i>	<i>%</i>
Society shows too much concern for the environment	23	5.3
Society shows about the right amount of concern for the environment	100	21.1
Society doesn't show enough concern for the environment	350	73.7

Environmental Issues of Most Concern

Participants were asked to indicate the two environmental issues about which they were most concerned, in order to evaluate issues of prime importance by region, and demonstrate the structure of people's environmental concerns.

Table 12 indicates that 36 percent of respondents indicated forest related issues⁹ such as logging and deforestation were the environmental issues they were most concerned about. Pollution issues, particularly water pollution (22.1%), were also high in the structure of people's environmental concerns. Figure 10¹⁰ groups together the primary categories of issues showing that both pollution-related issues were the primary concerns of the respondents, followed by forest related issues. This reflects previous surveys (see Section 4) and reveals the high symbolic value both forests and pollution command in the structure of people's environmental concern.

⁹ Due to the opening sentences of the questionnaire in which the term 'forest' is mentioned (see Appendix 1), there is the potential for respondents answers to be structured in ways that prioritise forest-related issues.

¹⁰ The categories for figure 10 were created as follows: Global Atmospheric Issues (Greenhouse Effect / Global Warming / Ozone Layer / CFCs); Forest Related Issues (Deforestation / Logging / Biodiversity); Pollution Related Issues (Beach Pollution, Water Pollution, Air Pollution, Unspecified Pollution, Industrial Emissions, Cars), Waste Related Issues (Production of Waste, Waste Disposal, Litter); Current Development Paradigm (Current Development Paradigm, General Consumption); Agricultural Issues (Pesticides / fertilisers, Land degradation / Erosion / Salinity), Other Issues (Energy Production, Mining, Water Conservation, Nuclear Issues / Uranium Mining, Population Pressure, Noise Pollution, Urban Sprawl, Media / Education, Others)

Figure 10

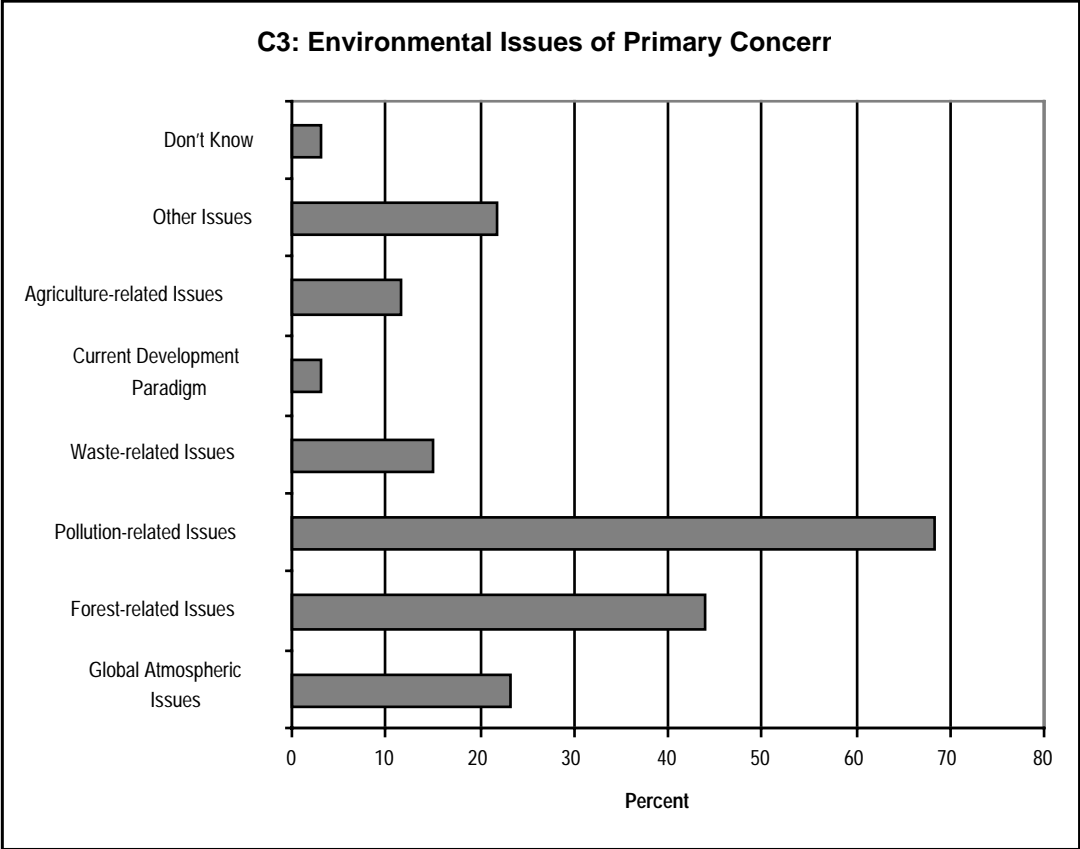


Table 12

Environmental Issues of Most Concern (N=476)		
	<i>Frequency</i>	<i>Percentage</i>
Greenhouse effect/global warming	74	15.6
Ozone layer/CFCs	36	7.6
Deforestation/logging	170	35.7
Biodiversity loss	40	8.4
Nuclear Issues	5	1.1
Population pressure	9	1.9
General Consumption	8	1.7
Current Development Paradigm	6	1.3
Beach pollution	13	2.7
Water pollution	105	22.1
Water conservation	37	7.8
Air pollution	59	12.4
Noise Pollution	13	2.7
Cars	11	2.3
Unspecified pollution	97	20.4
Litter	16	3.4
Production of waste	17	3.6
Waste disposal	38	8
Land degradation/erosion/salinity	46	9.7
Energy Production	12	2.5
Pesticides/fertilisers	9	1.9
Industrial Emissions	6	1.3
Urban Sprawl	11	2.3
Mining (not uranium)	9	1.9
Media / Education	3	.6
Others	4	.8
Don't know	15	3.2

Environmentally Responsible Behaviour

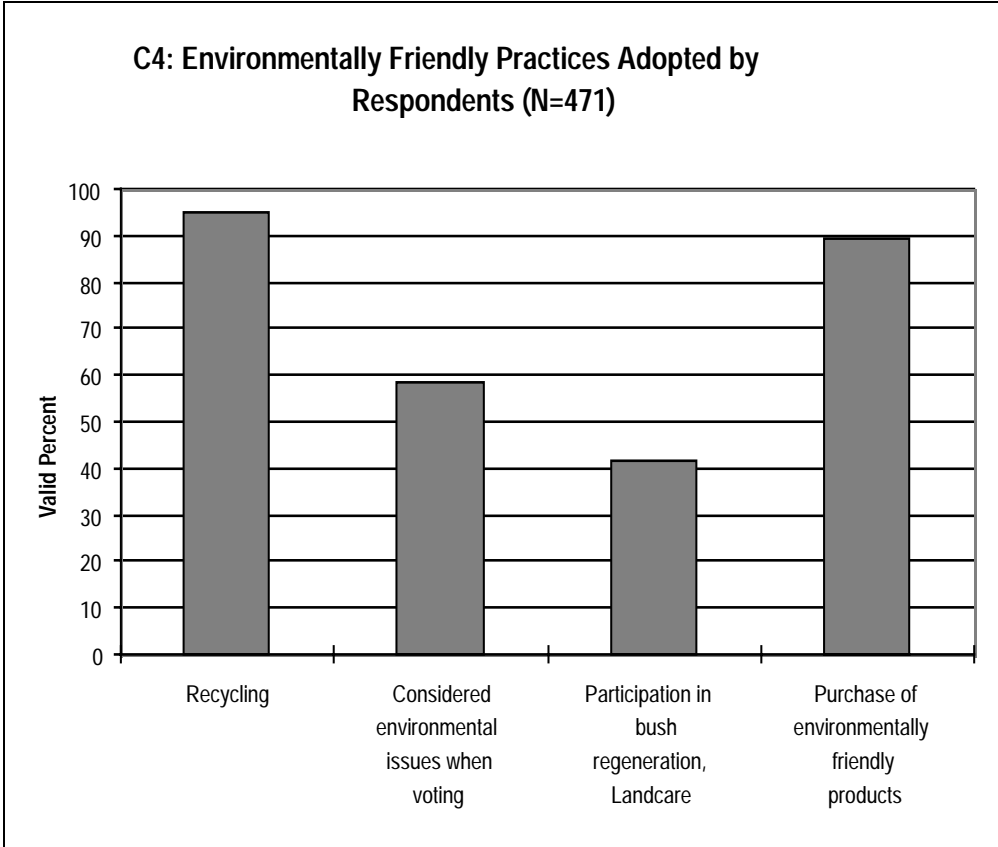
In order to assess how people's environmental concerns are translated into environmentally responsible behaviour (as a measure of their commitment to environmental issues) the survey asked participants whether they had adopted any of the following practices in an effort to become more environmentally friendly in the last 5 years: recycling (waste-minimisation behaviour); considered environmental issues when voting (political activity); participation in bush regeneration, Landcare or an active anti-litter campaign (active participation); and purchase of environmentally friendly products (consumption behaviour).

Table 13 reveals a strong performance by the participants on behaviour such as recycling, with 95.1 percent of respondents indicating they recycle, and the purchase of environmentally friendly products (89.3%). More committed forms of behaviour such as voting considerations (58.4%), and to a lesser extent, participation in community-based environmental campaigns also ranked relatively highly, showing a strong commitment and interest in environmental issues within the sample (see Table 13 and Figure 11).

Table 13

Adoption of Environmentally Friendly Practices (N=471)		
	<i>Frequency(Yes)</i>	<i>Percentage</i>
Recycling	448	95.1
Considered environmental issues when voting	274	58.4
Participation in bush regeneration, Landcare or an active anti-litter campaign	196	41.6
Purchase of environmentally friendly products	416	89.3

Figure 11



5.D : Uses of Forested Land

Introduction

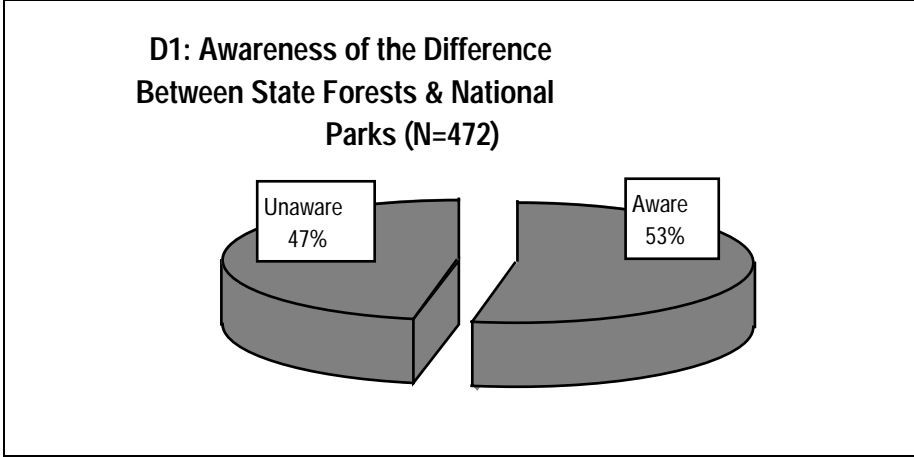
There are two dimensions to people’s attitudes towards forest land use. The first is their actual personal use, and the second is how they would like to see the land used at a broader scale. Factors influencing people’s ideas include current land categories, the two most important ones being the division between State Forests and National Parks. To investigate these factors, people were asked about their current usage patterns and how they think the land should be managed. If people were aware of the differences between National Parks and State Forests they could indicate different uses for each of these land units, if they were unaware, forested land was referred to under the umbrella term of ‘public forests’. To further investigate uses of forested land a series of statements were read out to the respondents where they could indicate the extent to which they disagreed or agreed with the statement. To differing extents all the questions in this section also indicate the way people value forested land.

5.D.1 Personal Uses of Forested Land

Awareness of National Park / State Forest Distinctions

Respondents were asked about their awareness of the difference between State Forests and National Parks, and based on their response they were streamed into a series of questions. Just over a half of respondents (53%) reported an awareness of the difference between State Forests and National Parks (refer to Figure 12) whilst forty seven percent of respondents were unaware of the difference between State Forests and National Parks..¹¹

Figure 12



Personal Use of Forested Land

Table 14 shows the frequency of visits to State Forests and National Parks (for people aware of the difference in tenure between the two) and Public Forests. It can be seen that respondents visit National Parks on a more regular basis, than State Forests, with 20 percent of people reporting to visit National Parks more than once a month compared to 14 percent reporting to visit State Forests more than once a month. Seventeen percent of the sample that did not know the difference between State Forests and National Parks reported visiting public forests more than once a month. The most frequently reported category for State Forests was 'hardly ever' receiving 28 percent of responses from the sample of those aware of the difference between State Forests and National Parks; the next most frequently given response was 'once a year' (19%). For National Parks the most frequently

¹¹ A question testing this awareness, in order to remove the positive bias inherent in a yes/no response question, would have been preferable, but was not possible due to time constraints.

reported category was 'once every 2-3 months'. 'Hardly ever' received the highest proportion of responses (25%) from the group of respondents unaware of the difference between State Forests and National Parks; followed by 19 percent of respondents indicating they visit public forests 'once a year' and 'once every 2-3 months'.

Table 14

Frequency of Visits to Public Forests						
	<i>Frequency</i>			<i>Percentage</i>		
	<i>N=251</i>		<i>N=224</i>			
	<i>State Forests</i>	<i>National Parks</i>	<i>Public Forests</i>	<i>State Forests</i>	<i>National Parks</i>	<i>Public Forests</i>
> once a week	8	7	9	3.2	2.8	4
Fortnightly	8	13	7	3.2	5.2	3.1
Once a month	18	31	23	7.2	12.4	10.3
Once every 2-3 months	34	68	42	13.6	27.1	18.8
Once every 6 months	45	44	26	18	17.5	11.6
Once a year	48	44	42	19.2	17.5	18.8
Hardly ever	69	38	57	27.6	15.1	25.4
Never	20	6	18	8	2.4	8
Not Applicable	226	225	252	-	-	-

Entrance Fees

Table 15 shows that 74 percent of respondents who were aware of the difference between State Forests and National Parks reported having paid an entrance fee to visit a State Forest or National Park. There was, however, a lower percentage of respondents (60%) reported paying an entrance fee who were not aware of the difference between State Forests and National Parks.

Table 15

Payment of Entrance Fee to visit Forested Land				
	<i>Frequency (Yes)</i>	<i>Percentage (Yes)</i>	<i>Frequency (No)</i>	<i>Percentage (No)</i>
State Forests & National Parks(N=250)	183	73.5	66	26.5
Public Forests (N=222)	132	60	88	40

Willingness to Pay

Table 16 shows the results of the question inquiring about respondents' willingness to pay an entrance fee to forested land. Figure 13, 14, 15 and Table 16 highlight the differences in responses for State Forests and National Parks. Twenty one percent of respondents reported that they would not be prepared to pay an entrance fee to State Forests compared to only 13% for National Parks. The most popular amount people would be willing to pay was between \$4-6 for State Forests (with 40% of respondents who were aware of the difference between State Forests and National Parks providing this response). The most frequently indicated amount for National Parks was also \$4-6, with 44% of respondents giving this response. The results were similar for those who were unaware of the difference between State Forests and National Parks, with 38 percent of this group indicating they were prepared to pay \$4-6.

Table 16

Amount Respondents are Prepared to Pay to Visit Forested Land (\$)						
	Frequency			Percentage		
	<i>(N=248)</i>		<i>(N=221)</i>			
	<i>State Forests</i>	<i>National Parks</i>	<i>Public Forests</i>	<i>State Forests</i>	<i>National Parks</i>	<i>Public Forests</i>
None	52	31	28	21.1	12.5	12.7
1-3	46	35	36	18.6	14.1	16.3
4-6	98	108	84	39.7	43.5	38
7-9	23	32	21	9.3	12.9	9.5
10-15	24	38	43	9.7	15.3	19.5
16-20	2	2	5	0.8	.8	2.3
21-30	1	-	2	0.4	-	0.9
>30	1	2	2	0.4	.8	1
N/A	229	228	255	-	-	-

Activities in Forested Land

The main activities people undertake when they visit public forests are bushwalking, picnics, nature appreciation, and camping. Touring, visiting wilderness areas and swimming / surfing are the next most popular activities as shown in Table 17 and Figures 16 and 17. People who knew the difference between national parks and state forests were then more likely to nominate visiting forests for swimming, touring, skiing and cycling (Figure 16). Whilst those who did not know the difference between State Forests and National Parks were then more likely to nominate visiting public forests for swimming or surfing, touring, visiting wilderness areas and fishing (Figure 17).

Table 17

Typical activities in forested land				
	Frequency		Percentage	
	<i>Aware of difference (SF & NP) N=247</i>	<i>Unaware of difference (SF & NP) N=221</i>	<i>Aware of difference (SF & NP)</i>	<i>Unaware of difference (SF & NP)</i>
Picnics	108	113	42.89	50.45
Camping	50	30	19.84	13.39
Bushwalking	181	150	71.83	66.96
Nature appreciation	98	75	38.89	33.48
4WD	8	4	3.17	1.79
Fishing	8	8	3.17	3.57
Touring	20	14	7.94	6.25
Swim, surf	27	19	10.71	8.48
Skiing	15	7	5.95	3.13
Canoeing	6	4	2.38	1.79
Cycling	12	3	4.76	1.34
Hunting	1	-	0.40	-
Visit Wilderness	11	10	4.37	4.46
Cultural Appreciation	4	2	1.59	0.89
Education	9	2	3.57	0.89
Spiritual Reasons	10	3	3.97	1.34
Clean-up campaign	2	1	0.79	0.45
Never Visit	2	1	0.79	0.45
Employment	3	-	1.19	-

Figure 13

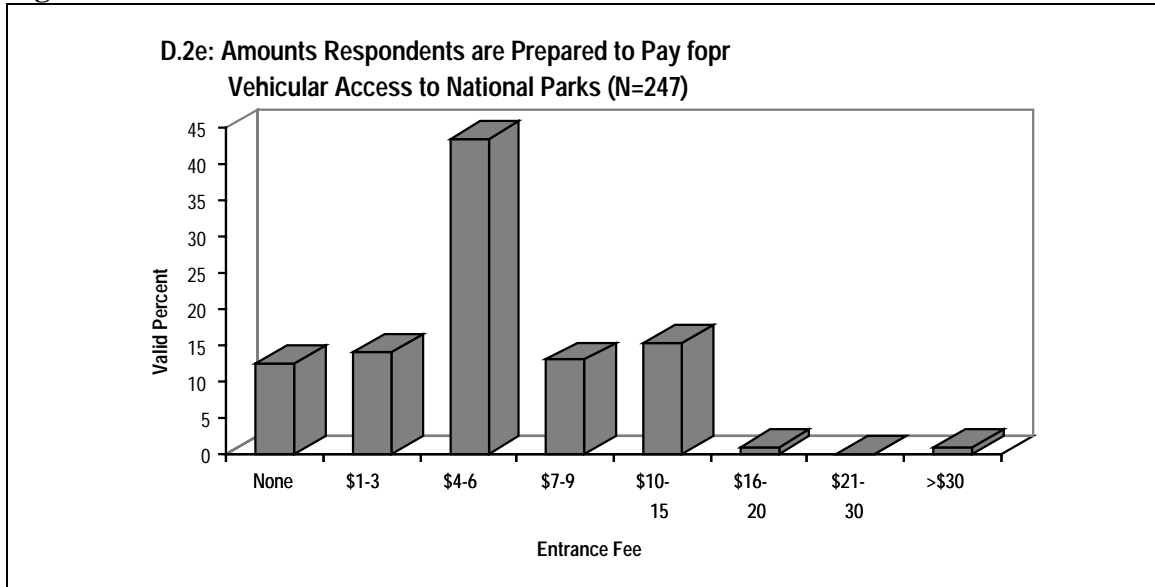


Figure 14

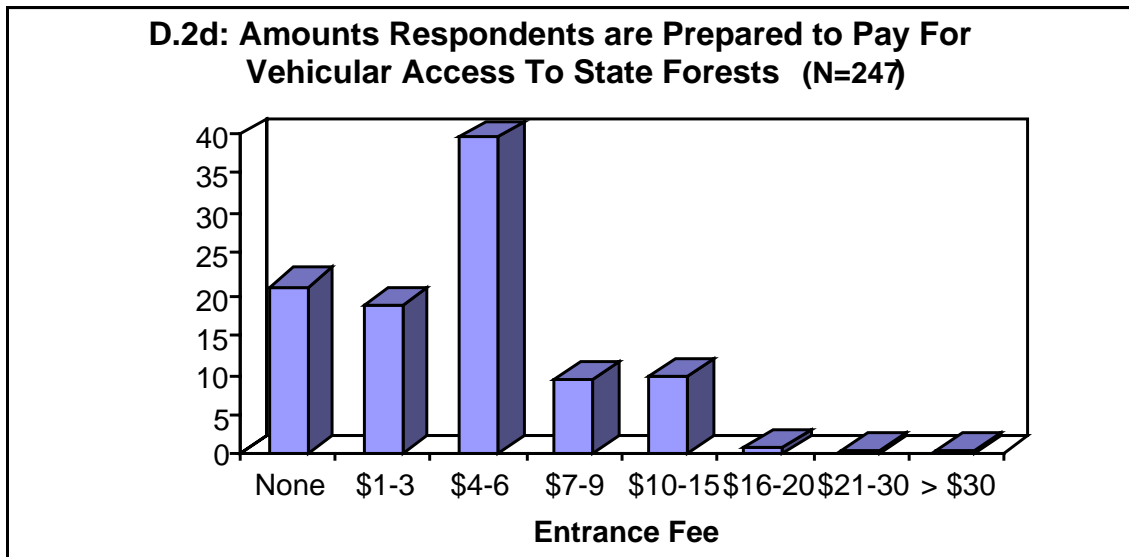


Figure 15

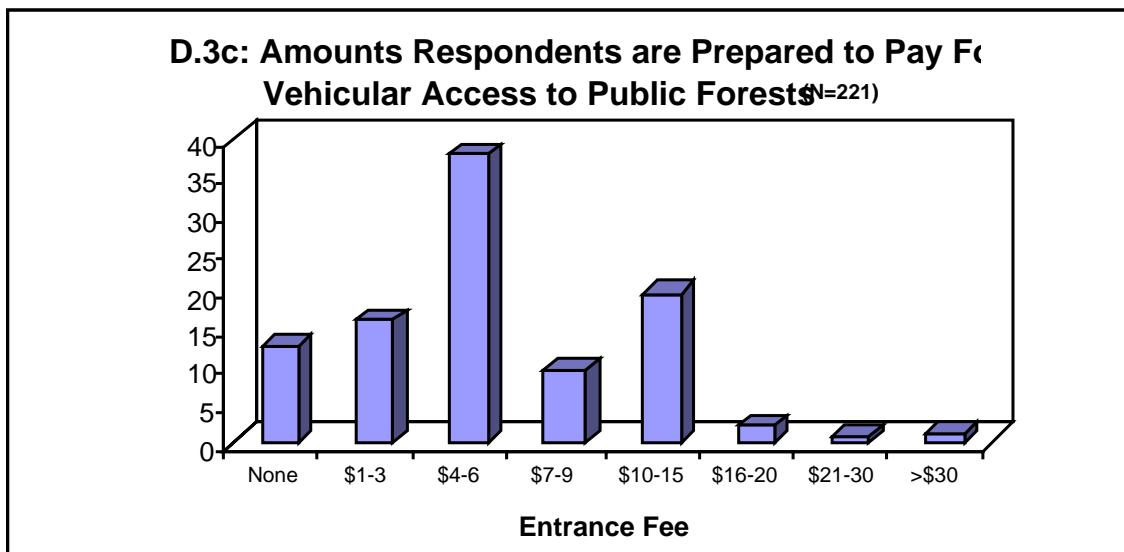


Figure 16

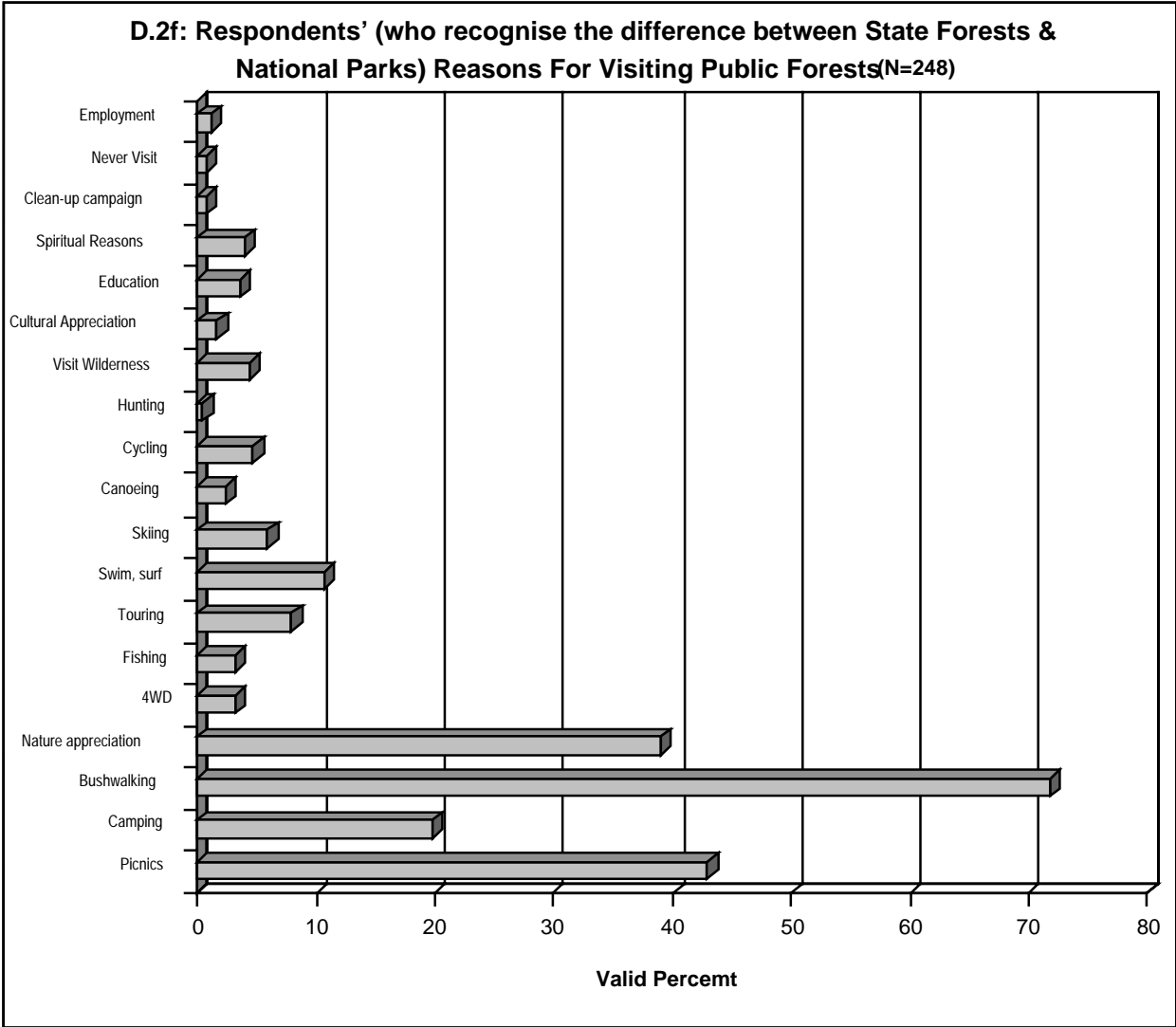
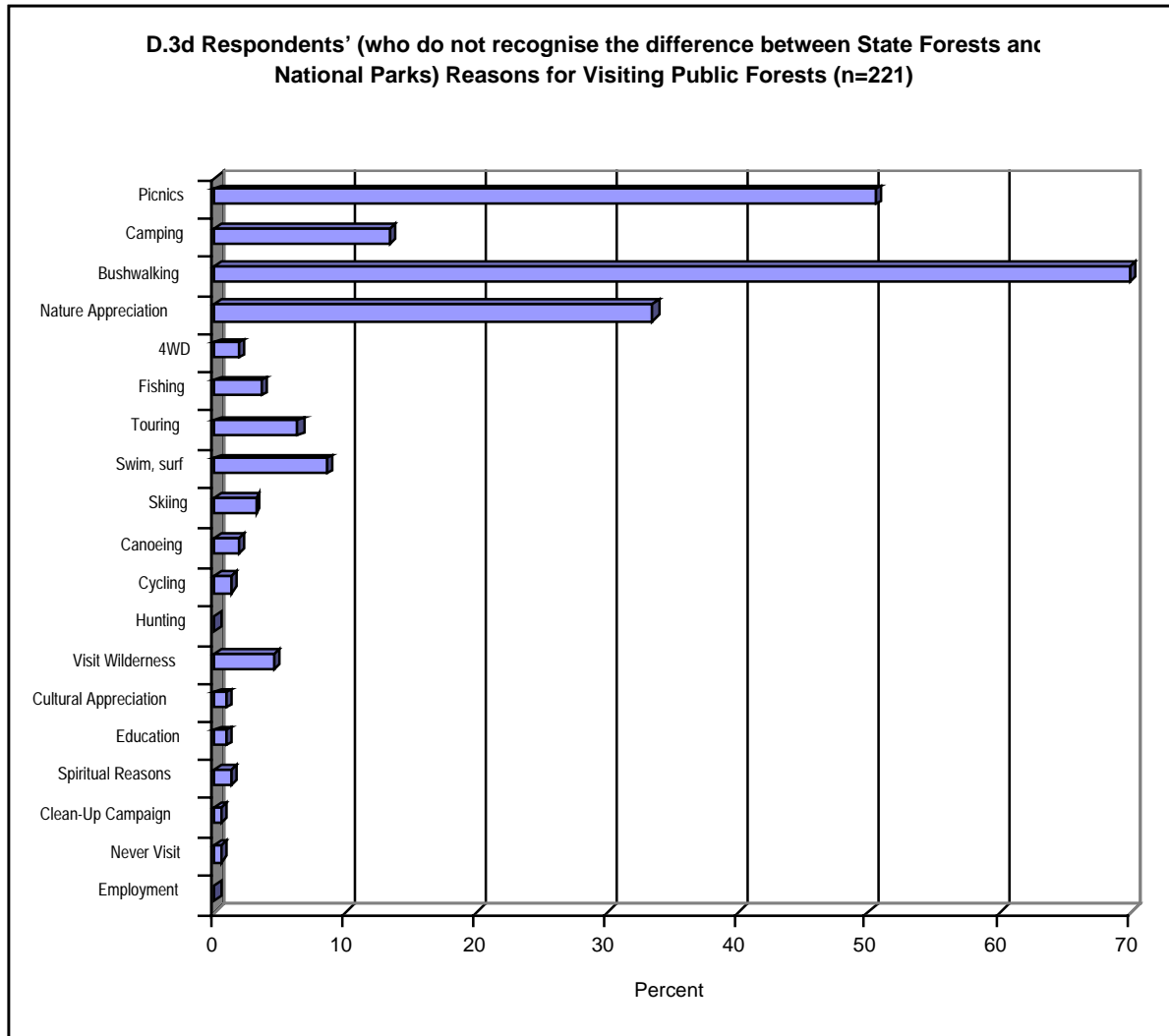


Figure 17



5.D.2 Broad-Scale Uses of Forested Land

Priority Uses of Forested Land

Figure 18 and Figure 19 indicate the responses from questions investigating what priority respondents gave to various activities with relation to public forests.

Figure 18 and Table 18 reveal that people who knew the differences between National Parks and State Forests felt that protecting wilderness, bushwalking / picnics, education / scientific, , protecting native plants and animals, camping, protecting Aboriginal sites, maintaining sites of natural beauty, ecotourism and maintaining water quality should be high priorities for managers in both forms of land tenure. Respondents did not think hunting, off road recreation, woodchipping, providing grazing land, or mining should be high priorities for managers in either land tenure. Just over forty percent of respondents indicated that timber production should be a priority for managers of State Forests, with the remainder evenly distributing their responses evenly between both National Parks and State Forests or neither.

Table 18: Priority Uses of State Forests and National Parks

Priorities (N=251)	National Parks (%)	State Forests (%)	Both (%)	Neither (%)	Don't know (%)
Timber Production	0	41.2	25.6	28.8	4.4
Protecting Wilderness	12.4	.8	84.9	1.6	.4
Hunting	.4	8.4	20.7	66.1	4.4
Bushwalking / Picnics	5.2	.8	92	1.6	.4
Educational / Scientific	2.4	1.6	92.8	2.4	.8
Protecting Native Plants and Animals	4	0	94.8	.8	.4
Beekeeping	1.6	11.2	54	20	13.2
Off-road Recreation	1.2	15.3	25.3	55	3.2
Woodchipping	.8	30	13.2	53.2	2.8
Grazing Land	.4	18.4	22.8	52	6.4
Camping	4.4	4	79.7	10	2
Aboriginal Sites	1.6	.8	89.2	5.2	3.2
Maintaining Sites of Natural Beauty	2.8	0	93.6	2.4	1.2
Paper Production	1.2	37.8	18.8	37.8	4.8
Ecotourism	5	1.8	81.2	8.4	3.6
Maintaining Water Quality	.4	.4	98	0	1.2
Mining	.4	12.6	17.1	61.4	8.5

Figure 18

Results for those who were not aware of the differences between State Forests and National Parks are similar to those who were aware of the differences. The question for this group was modified slightly to allow them to indicate what activities should be a high priority, low priority and not allowed. The activities which received the highest number of responses for the high priority category include: the protection of wilderness, protection of plants and animals, providing for bushwalking / picnics, educational / scientific, maintaining sites of natural beauty, maintaining Aboriginal sites, and maintaining water quality. Activities which received a large number of responses as a low priority include: timber production, woodchipping, off road recreation, beekeeping, paper production and mining received the largest 'not allow' responses. It should be noted that there were some difficulties with the 'hunting' category with people wishing to distinguish between native and feral animals.

Table 19: Priority Uses of Public Forests

Priorities (N=41)	High Priority (%)	Low Priority (%)	Not Allowed (%)	Don't Know(%)
Timber Production	18.8	48.2	29.5	3.6
Protecting Wilderness	90.1	7.6	1.3	.9
Hunting	8.6	34.2	55	2.3
Bushwalking / Picnics	82.9	15.8	.9	.5
Educational / scientific	86.5	9.9	1.4	2.3
Protecting Native Plants and Animals	93.7	5	1.4	0
Beekeeping	24.8	55	9.5	10.8
Off-road Recreation	12.6	47.3	37.8	2.3
Woodchipping	23.5	45.2	27.6	3.6
Grazing Land	8.1	45.5	41.9	4.5
Camping	54.1	36.9	6.8	2.3
Aboriginal Sites	71.2	52.2	2.7	.9
Maintaining Sites of Natural Beauty	91.4	5.4	1.8	1.4
Paper Production	14.4	54.4	28.4	2.3
Ecotourism	54.3	37.1	3.6	5
Maintaining Water Quality	93.7	3.2	2.7	.5
Mining	11.4	36.8	46.4	5.5

Figure 19

5.D.3 Uses, Attitudes and Beliefs

The following section of the questionnaire explored respondents' attitudes to different uses of forested land and the conflict, perceived or actual, between certain uses. A series of statements were read out to the participants and they were asked to indicate whether they strongly agreed, agreed, were not sure, disagreed, or strongly disagreed with the statement.

Aboriginal Values

A large majority of Aboriginal sites, both historical and sacred, are to be found in State Forests and National Parks throughout NSW. In order to assess participants' attitude to the preservation of Aboriginal sites and the importance of this goal over all other uses of forested land, the questionnaire asked participants' response to the following statement 'Aboriginal sites of significance should be protected, and are more important than other uses of forested land'.

Figure 20

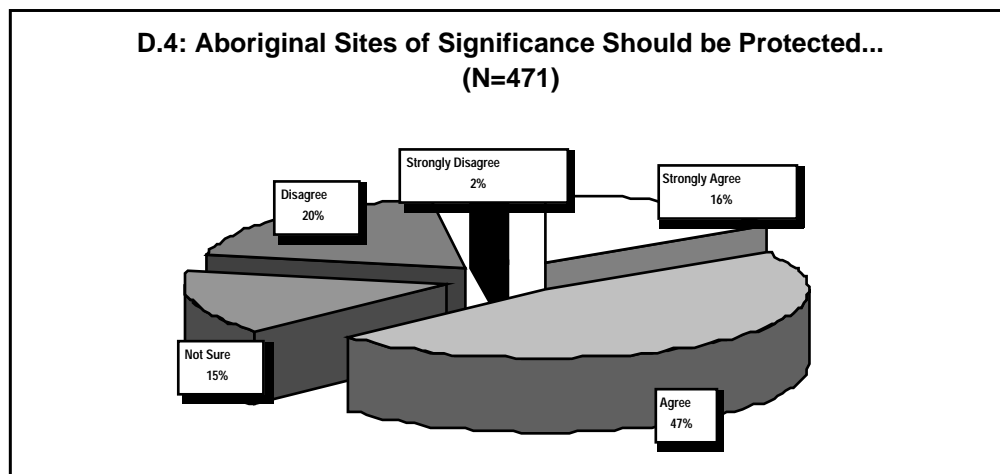


Figure 20 shows that the majority of people think that protecting Aboriginal sites should take priority over other uses of forested land. Sixty three percent of respondents believe Aboriginal sites should be protected over other land use considerations. A significant percentage of respondents were not sure (19%), and a total of 21.9% percent disagreed, (refer to Table 20).

Table 20

Aboriginal sites of significance should be protected, and are more important that other uses of forested land. (N=471)		
	<i>Frequency</i>	<i>Percentage</i>
Strongly agree	74	15.7
Agree	223	47.4
Not sure	70	14.9
Disagree	92	19.6
Strongly disagree	11	2.3

Coexistence of Environmental and Economic Goals

State natural resource management policy aims to ensure environmental protection and forestry industries exist side-by-side. To investigate community attitudes towards this policy objective the statement 'Environmental protection cannot co-exist with forestry industries' was tested on the participants.

Figure 21

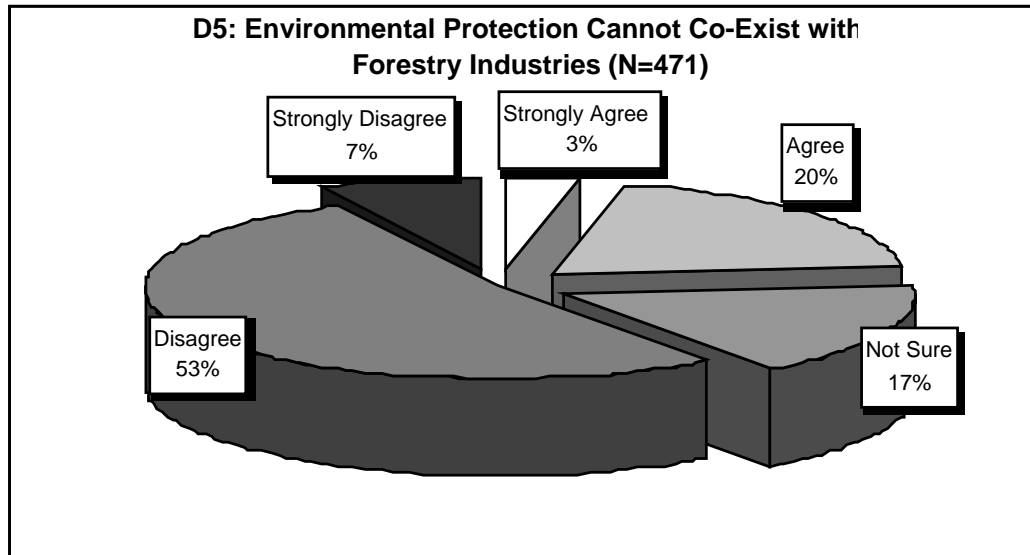


Figure 21 and Table 21 show the responses to the above statement indicating that 60 percent of respondents either disagreed (52.6%) or strongly disagreed (7.4%) with the above statement, meaning the majority of those surveyed felt that environmental protection can co-exist with forestry industries. A substantial percentage of people were unsure (16.6%) and 23.4 percent thought environmental protection and forestry industries were incompatible.

Table 21

Environmental protection cannot co-exist with forestry industries (N=471)		
	<i>Frequency</i>	<i>Percentage</i>
Strongly agree	15	3.2
Agree	95	20.2
Not sure	78	16.6
Disagree	247	52.6
Strongly disagree	35	7.4

Economic Importance of the Forestry Industry to Small Communities

The statement *'The forestry industry can be economically important for some small communities providing valuable employment, and therefore should be maintained'* was tested on the participants in order to elicit their attitude to the maintenance of primary industry activities in small towns in the light of the perceived economic importance of such activities.

Figure 22

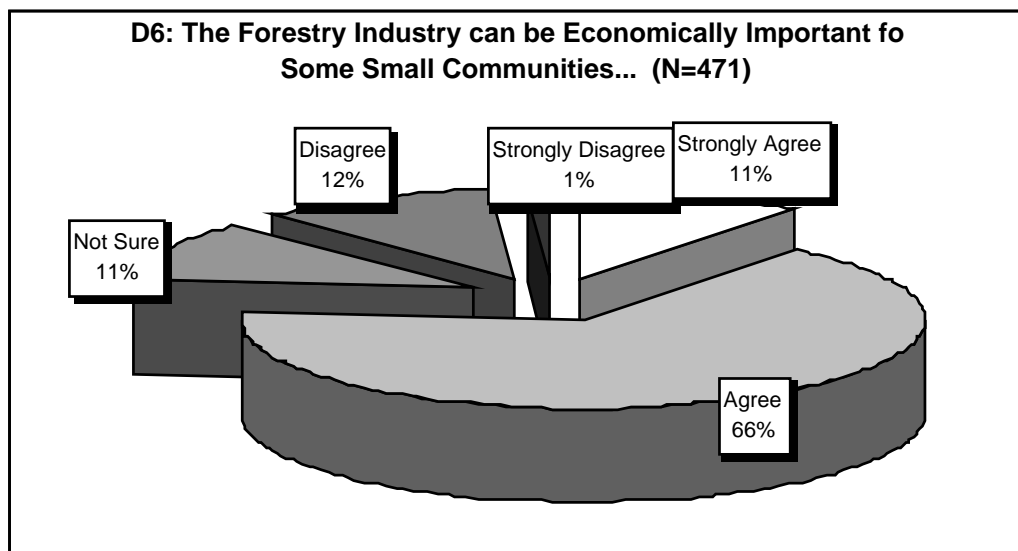


Figure 22 and Table 22 show that the majority of respondents (76.8%) believe some small communities are economically reliant upon the forestry industry and believe it should be sustained for these small communities. Only 12.6 percent of people disagreed with the statement.

Table 22

The forestry industry can be economically important for some small communities, providing valuable employment, and therefore should be maintained. (N=471)		
	<i>Frequency</i>	<i>Percentage</i>
Strongly agree	51	10.8
Agree	311	66
Not sure	50	10.6
Disagree	54	11.5
Strongly disagree	5	1.1

International Dimension of Forest Use

To explore the international dimension of forest use, and more specifically timber products, the statement 'Australia should draw its timber products from Australian forests rather than overseas forests even if overseas timber products are cheaper' was tested on participants.

Figure 23

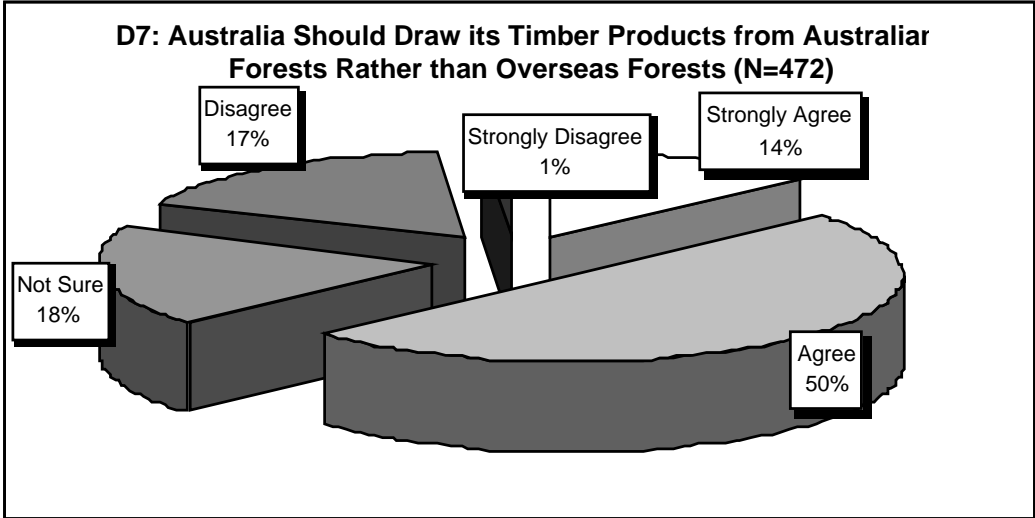


Figure 23 and Table 23 indicate that 63 percent of respondents agree (49.4%) or strongly agree (13.6%) with the above statement, and wish to see Australia draw its timber product needs from Australian forests rather than overseas. Only 18.7 percent of respondents disagreed with the statement and a substantial proportion were unsure (18.2%).

Table 23

Australia should draw its timber products from Australian forests rather than overseas forests even if overseas timber products are cheaper. (N=472)		
	<i>Frequency</i>	<i>Percentage</i>
Strongly agree	64	13.6
Agree	233	49.4
Not sure	86	18.2
Disagree	82	17.4
Strongly disagree	6	1.3

Conservation and State Income

To contrast conservation uses with economic uses (such as timber production) the following statement was tested on the survey participants 'I would like to see more forested land conserved even if it means a loss of income to the state from timber harvesting'. The question also explored participants' responses to the situation of potential conflict between conservation use and state income from the use of forests for timber harvesting.

Figure 24

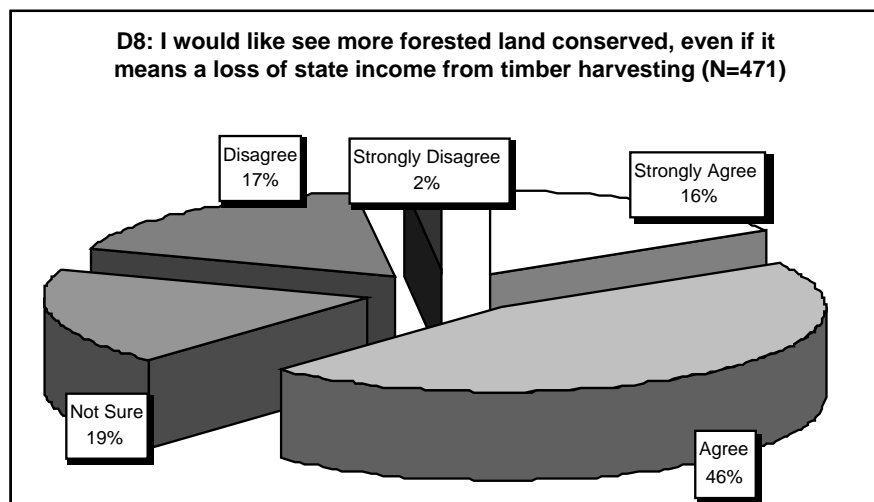


Table 24 and Figure 24 show that in total 61.7 percent of people agreed with the statement whilst 19.3 percent disagreed with the statement. This shows that almost two thirds of the sample put environmental principles before economic principles at a State level and in a forestry context.

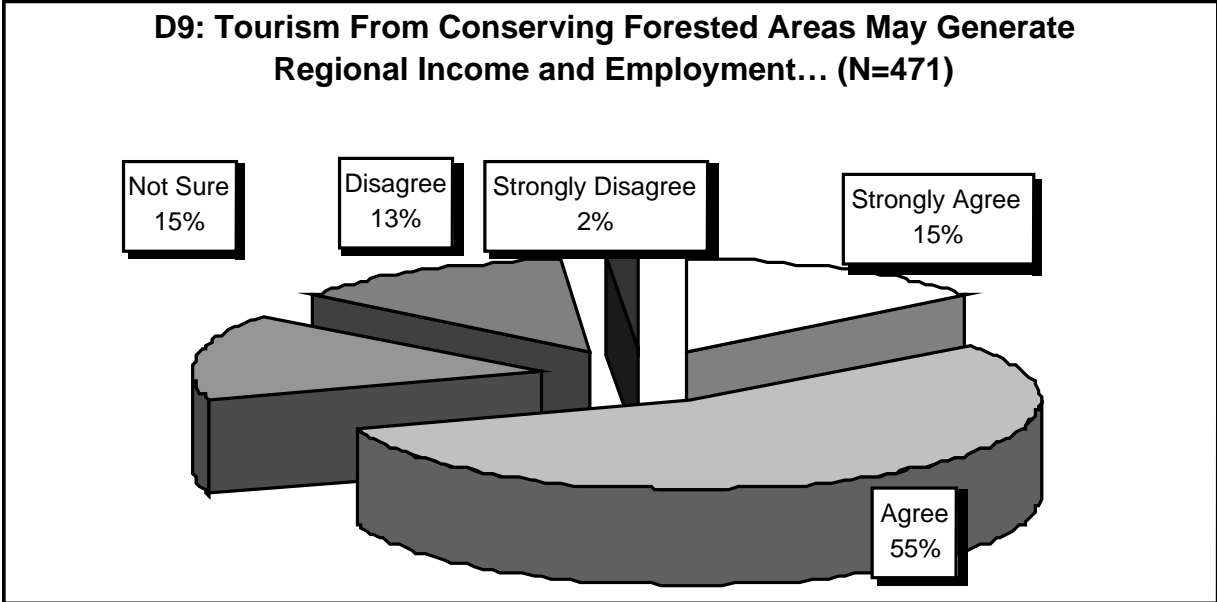
Table 24

I would like to see more forested land conserved even if it means a loss of income to the state from timber harvesting. (N=471)		
	<i>Frequency</i>	<i>Percentage</i>
Strongly agree	77	16.3
Agree	214	45.4
Not sure	89	18.9
Disagree	82	17.4
Strongly disagree	9	1.9

Non-extractive Economic Uses of Forested Land

To reveal the extent to which people believe non-extractive economic uses of forested land can offset income and employment losses in extractive industries, respondents were asked to respond to the following statement, *'Tourism from conserving forested areas may be able to generate regional income and employment offsetting possible losses in the timber industry'* (Figure 25 and Table 25).

Figure 25



A total of 70 percent of people agreed with the statement believing increased tourism could offset possible losses in the timber industry. Only 14.7 percent of people did not agree with the statement and another 15.3 percent were unsure.

Table 25

Tourism from conserving forested areas may be able to generate regional income and employment offsetting possible losses in the timber industry. (N=471)		
	<i>Frequency</i>	<i>Percentage</i>
Strongly agree	69	14.6
Agree	261	55.4
Not sure	72	15.3
Disagree	62	13.2
Strongly disagree	7	1.5

Source of Timber Products

The figures represented in Figure 26 and Table 26 indicate that the majority of respondents wish to have timber sourced from pine plantations (63.5%) or Eucalypt plantations (36.8%). Almost 20 percent of people did not mind where the timber came from whilst only 2.9 percent of people thought timber should only come from Native Forests.

Figure 26

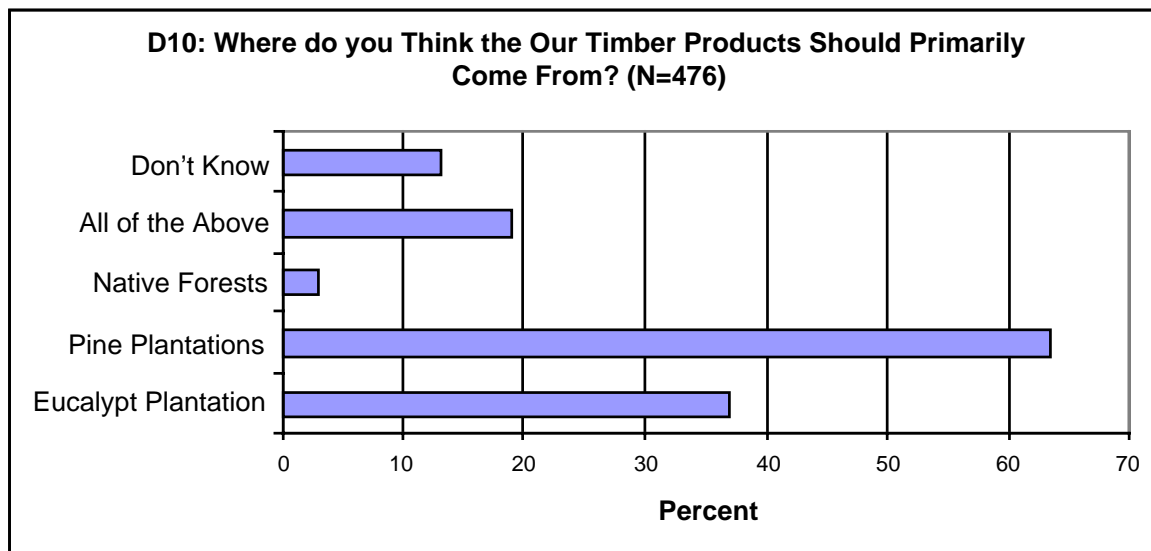


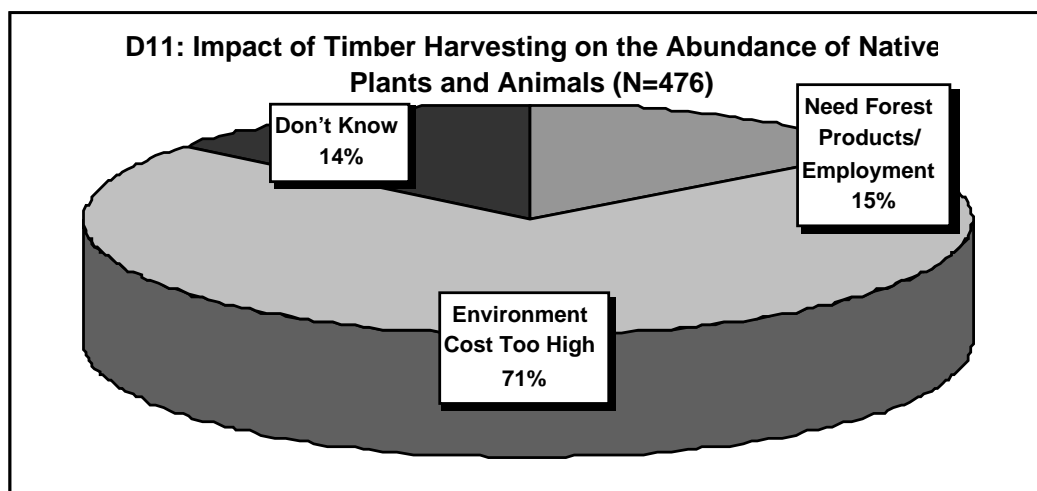
Table 26

Preferred source of timber products (N=476)		
	<i>Frequency</i>	<i>Percentage</i>
Eucalypt plantations	175	36.8
Pine plantations	302	63.5
Native Forests	14	2.9
All of the above	90	18.9
Dont know	63	13.2

Economic and Conservation Uses of Forests

In order to explore the potential scenario of a conflict between conservation and socio-economic uses of forested land participants were given a probable scenario and then given two options in order to clearly identify people's value orientations. The probable scenario was that timber harvesting in native forests may have an adverse impact on the abundance of native plants and animals. The options respondents had to choose from were limited in order to identify their value orientation between socio-economic objectives (forestry products and employment) and environmental objectives (conservation and protection of native species).

Figure 27



The figures presented in Figure 27 and Table 27 indicate that two thirds of the respondents (71.4%) valued conservation and the preservation of animal and plant species over economic objectives such as jobs and forestry products (14.7%). A significant percentage were unsure (13.9%)

Table 27

Timber harvesting in native forests may have an adverse impact on the abundance of native plants and animals. If this is the case, do you think: (N=468)		
	<i>Frequency</i>	<i>Percentage</i>
This is unfortunate but we need forestry products and employment	69	14.7
The environmental costs are too high, it might be better to compromise on forestry activities	334	71.4
Dont know	65	13.9

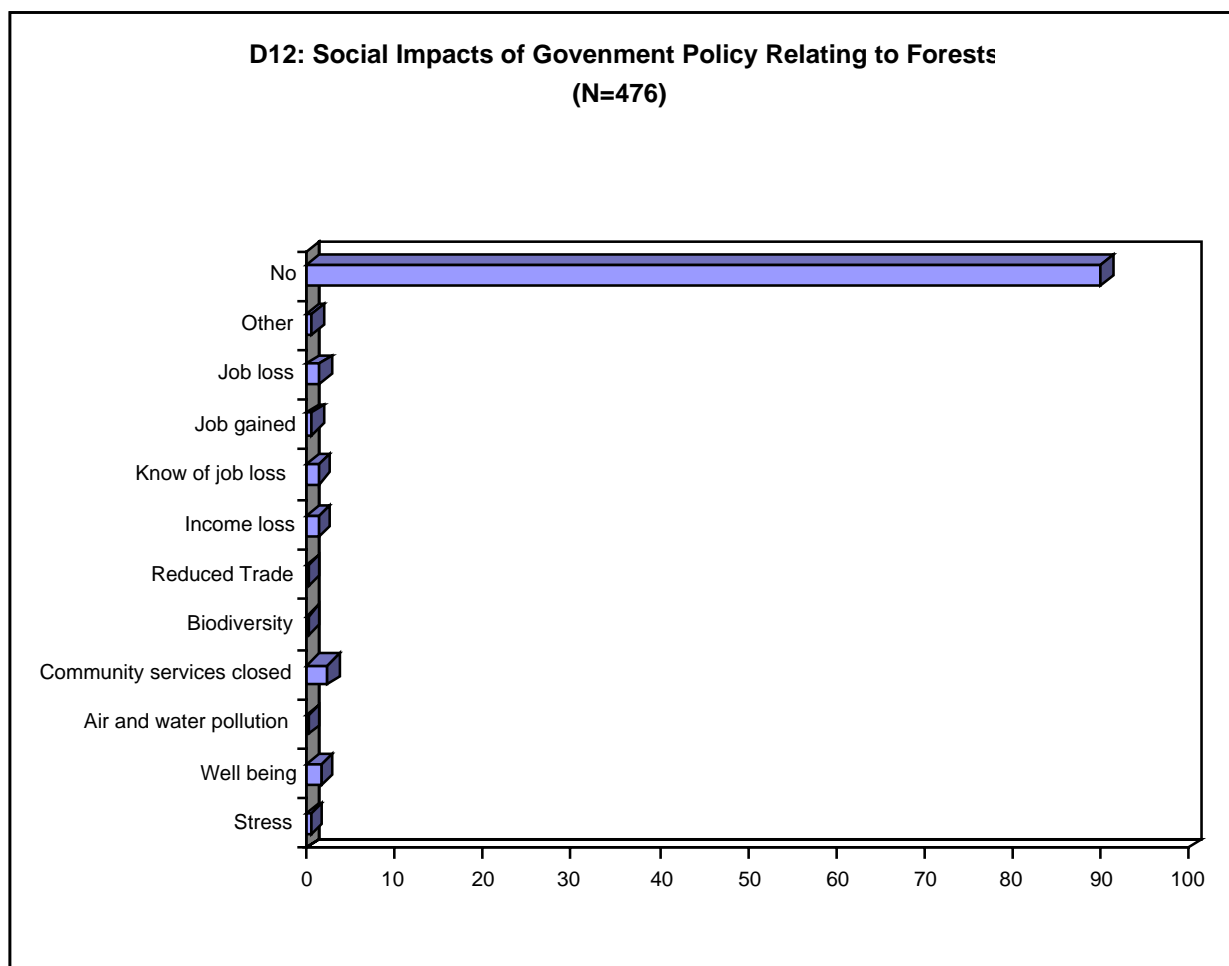
Social Impact of Forest Policy

Participants were asked if they or their family had been directly affected in any way by government policy relating to forests in order to identify the social impacts of forest policy and the geographical location of these impacts. Table 28 gives the percentages and frequencies for this question; the responses indicate that the majority of respondents (90.1%) have not been directly affected by government forest policy. The most common effects upon people in the NSW sample was having community services closed (2.52%).

Table 28

Have you or your family been directly affected in any way by government policy relating to forests, if so how? (N=476)		
	<i>Frequency</i>	<i>Percentage</i>
Stress	2	.42
Well being	8	1.7
Air and water pollution	1	.21
Community services closed	12	2.52
Biodiversity	1	.21
Reduced Trade	1	.21
Income loss	7	1.47
Know of job loss	7	1.47
Job gained	3	.63
Job loss	8	1.63
Other	3	.63
No	429	90.1

Figure 28



5.E Social Values of Forested Land

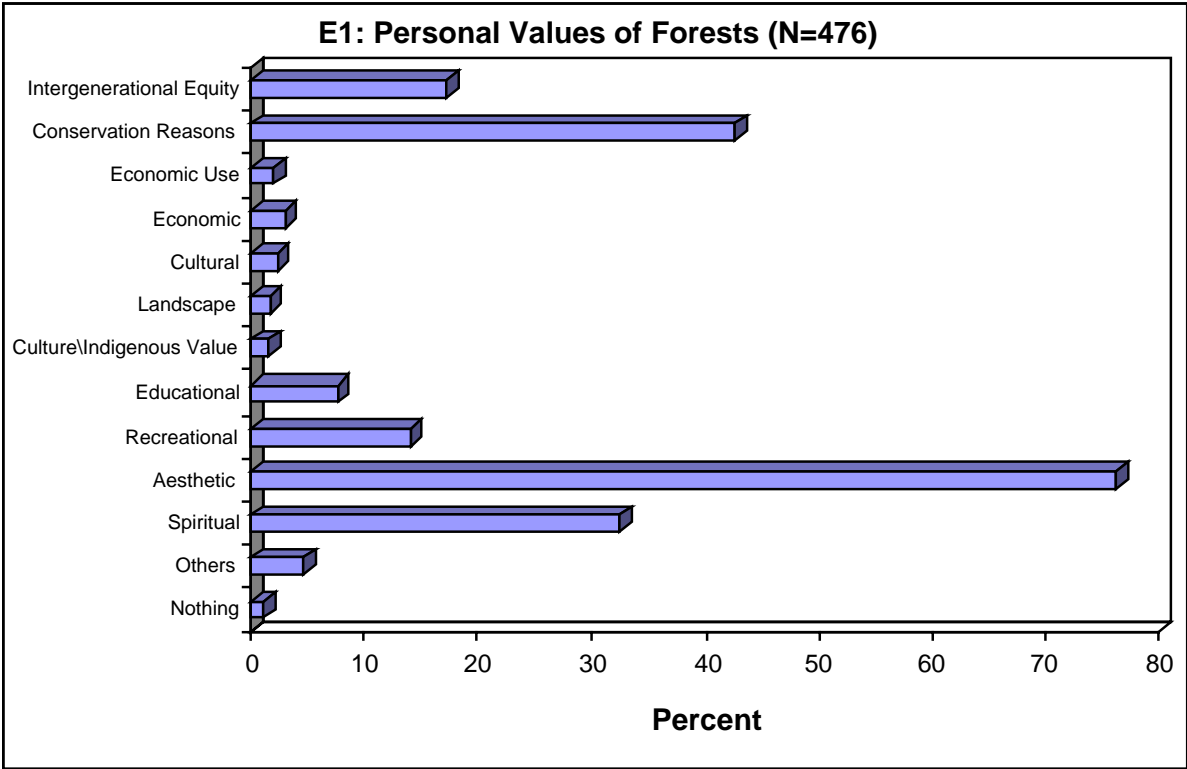
Introduction

This section was composed of five key questions to further investigate how people value forested land.

Personal Value of Forests

To gain an understanding of what people value about forests at a personal level, people were asked "what is it about forests that you value?". Figure 29 and Table 29 display the responses to the question.

Figure 29



The results indicate that a high percentage of respondents (76%) value the aesthetic qualities of forests highly. Respondents also indicated that the conservation qualities (42%) were highly valued as were the spiritual qualities (32%). The next most frequent responses were from those who felt it was important to sustain the forests for future generations (17%). Fourteen percent of respondents indicated they value forests for recreation.

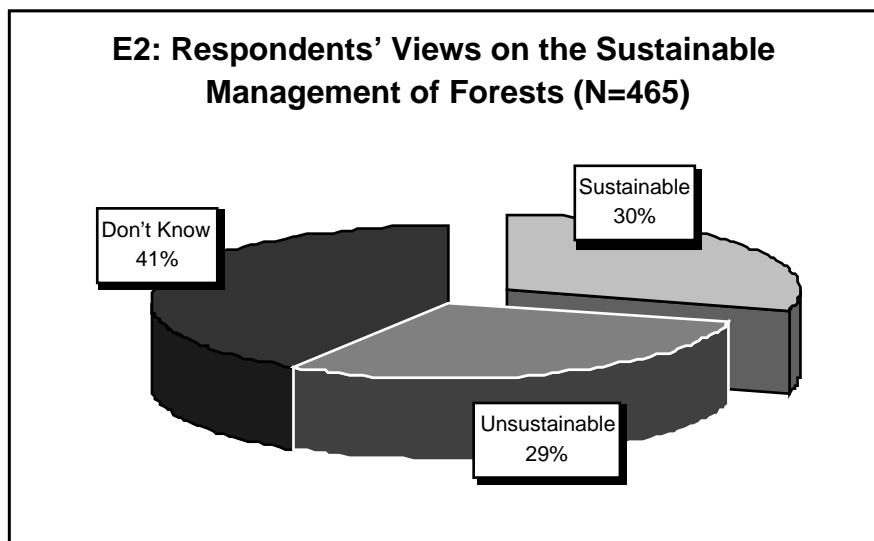
Table 29

Personal Value of Forests (N=476)¹²		
	<i>Frequency</i>	<i>Percentage</i>
Nothing	5	1.05
Others	22	4.62
Spiritual	154	32.35
Aesthetic	363	76.26
Recreational	67	14.08
Educational	36	7.56
Indigenous culture	7	1.47
Landscape	8	1.68
Cultural	11	2.31
Economic/employment	14	2.94
Economic goods and use	9	1.89
Conservation	202	42.44
Intergenerational equity	82	17.23

Ecologically Sustainable Forest Management

Ecologically sustainable management is a basic policy principle for forests in Australia. To test the public’s perception and awareness of the concept participants were asked if they thought current management of forested land is ecologically sustainable. Responses were equally broken down between the ‘sustainable’ (30%) and ‘unsustainable’ (29%) choices. There was a high percentage of respondents (41%) reporting they did not know, as outlined in Table 30 and Figure 30.

Figure 30



¹² Spiritual – well being, peace and quiet, escape, faith in the world, good feelings. Aesthetic – beauty, space, experience nature. Recreational – exercise, sport, games. Educational – learn things about nature. Indigenous culture – understand / experience Aboriginal culture. Landscape – paint, take photographs. Cultural – socialise. Economic – employment. Economic goods and use – gathering firewood / seeds. Conservation – various conservation reasons. Intergenerational equity – sustain values for future generations.

Table 30

Do you think current management of forested land is ecologically sustainable? (N=465)		
	<i>Frequency</i>	<i>Percentage</i>
Yes	137	29.5
No	136	29.2
Dont know	192	41.3

Issues of Concern Relating to Forested Land

Respondents were asked what issues regarding forested land they were specifically concerned about. One quarter of the respondents did not nominate any specific forest related issues as being of particular concern. Thirty one percent of the sample reported they were concerned about logging and 25.2 percent reported they were concerned about woodchipping. The next most frequently recorded issues were 'biodiversity loss' (17.4%), loss of wilderness (19.2%) and 'degraded land' (15.6%), as shown and illustrated in Figure 31 and Table 31.

Environmental concerns were ranked quite highly by the respondents, with socio-economic concerns such as job losses (2.7%) and job security (2.52%) ranking much lower. These results indicates high environmental value the sample group invests in forests.

Figure 31

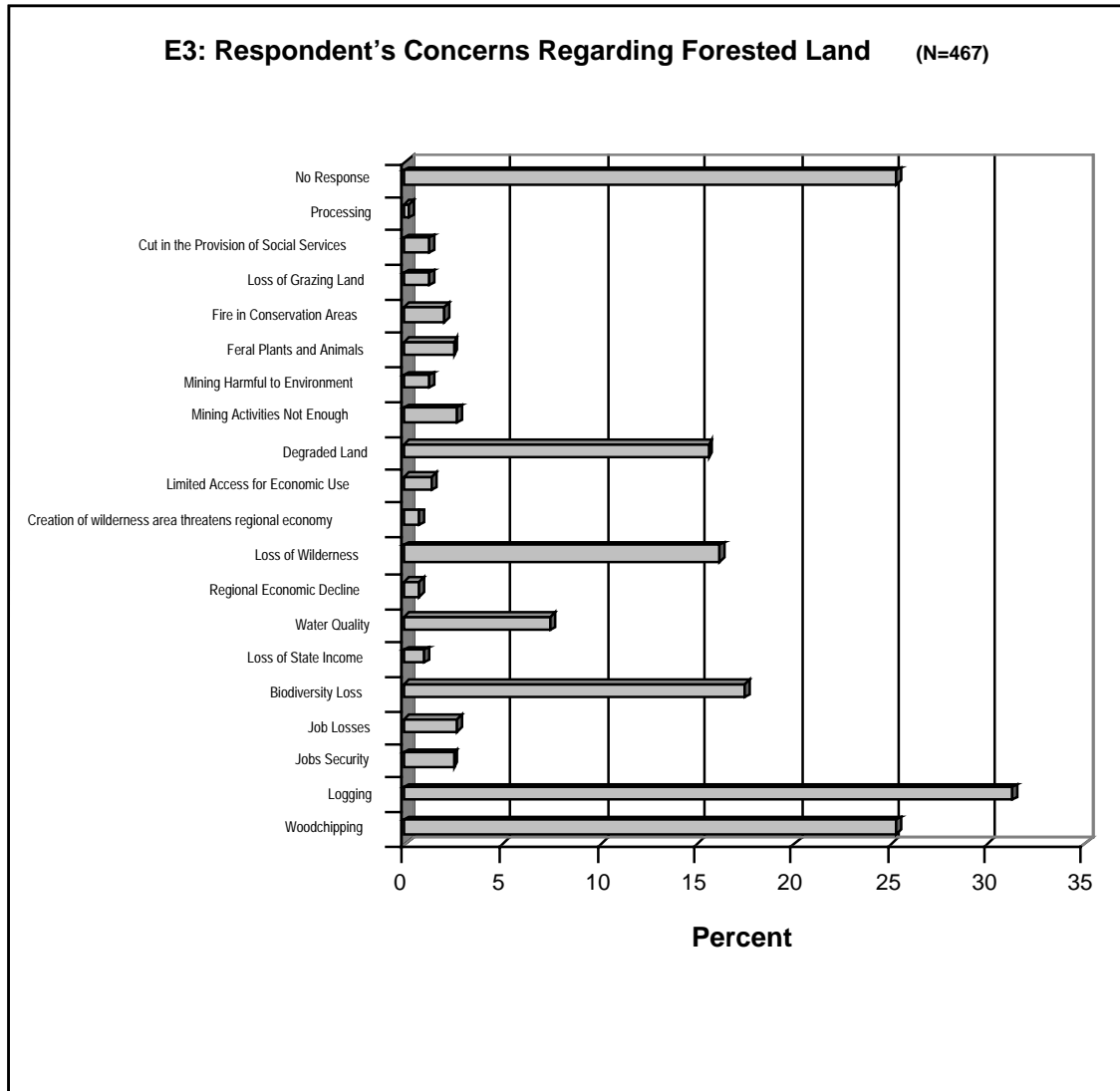


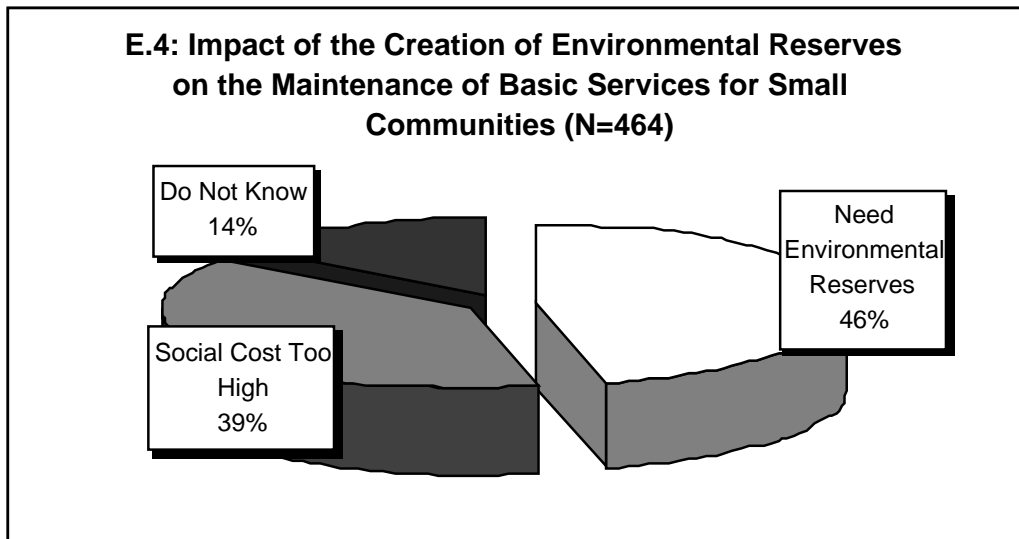
Table 31

Issues of concern regarding forested land (N=467)		
	<i>Frequency</i>	<i>Percentage</i>
Woodchipping	120	25.21
Logging	149	31.30
Job security	12	2.52
Job losses	13	2.73
Biodiversity loss	83	17.44
State income	5	1.05
Water quality	36	7.56
Regional economic decline	4	0.84
Loss of wilderness	77	16.18
Creation of wilderness area a threat to regional economy	4	0.84
Limited access to natural resources for economic uses	7	1.47
Degraded land	74	15.55
Mining activities environmentally harmful	6	1.26
Not enough mining activities	13	2.73
Feral plants and animals	12	2.52
Fire in conservation areas	10	2.10
Loss of grazing land	6	1.26
Cut in Provision of Social Services	6	1.26
Processing	1	0.21
No response	109	23.3%

Social and Conservation Values

This question explored people's responses to the potential scenario of a conflict between conservation and social values relating to the use of forested land. Survey participants were given a probable scenario and then given two options in order to clearly identify people's value orientations. The scenario was that forestry jobs may be lost to create environmental reserves, and this may then affect some small communities adversely by reducing their access to basic services (as the population may decline to a level that may lead to the closing of schools, health services etc.). The options respondents had to choose from were limited in order to identify their value orientation between social and community objectives (access to basic services) and environmental objectives (conservation and environmental reserves). The results are displayed in Figure 32.

Figure 32



The figures in Table 32 show that the majority of respondents (46%) considered that it would be unfortunate for these communities but environmental reserves are needed for the benefit of future generations. However, 40 percent indicated that they felt the social costs of closing essential services in small communities would be too high, and that it would be better to compromise on environmental reserves. A significant proportion of respondents (14%) did not know which option to choose or did not understand the question.

Table 32

Forestry jobs may be lost to create new environmental reserves. This may then affect some small communities adversely, by reducing their access to basic services. If this is the case do you think: (N=476)		
	<i>Frequency</i>	<i>Percentage</i>
Unfortunate for these communities but we need environmental reserves for the benefit of future generations	215	46.3
The social costs are too high, it may be better to compromise on creating environmental reserves than reduce people's access to basic services.	182	39.2
Don't know	67	14.4

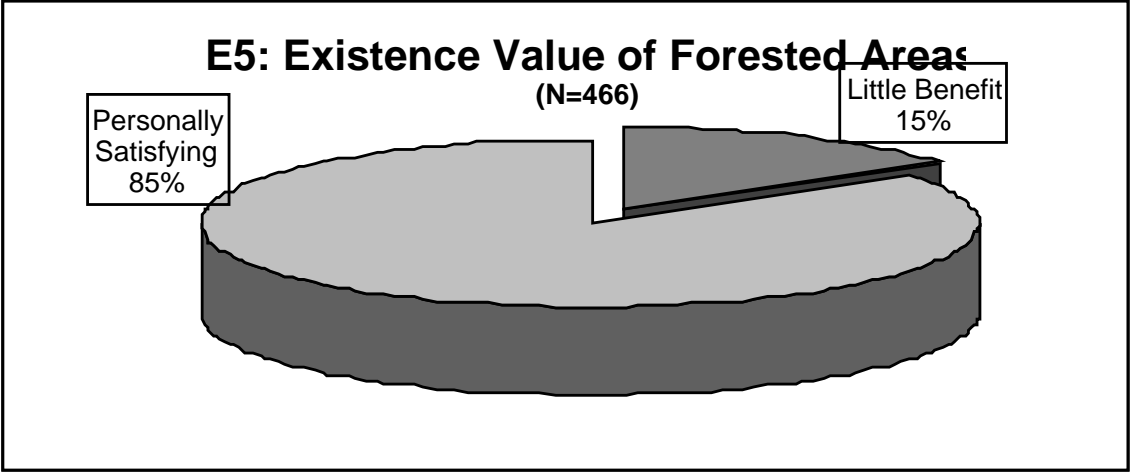
Existence Value of Forests

To explore respondents' attitudes to the wilderness and existence values of forests in comparison to anthropocentric values the following question was asked of the survey participants:

Table 33

Some forested areas are rarely visited or used by people. Do you feel: (N=466)		
	<i>Frequency</i>	<i>Percentage</i>
there is little benefit in having forested land if humans can't use it for some type of recreational or economic activity.	72	15.4
it is personally satisfying to know that there is forested land that is 'untouched' by humans even if it is never used for recreational or economic activity	394	84.5

Figure 33



The results clearly show in Figure 33 and Table 33 that people are in favour of wilderness areas that are not used for recreational or economic activities, with 85% of respondents indicating that it is personally satisfying to know there is forested land 'untouched' by humans.

6. Qualitative Assessment of Survey Comments Across NSW

Over one quarter of respondents (203 respondents or 26.4%) took the opportunity to further express their opinions about forests and the environment by responding to the invitation in the last question of the survey to add their own comments. This relatively high response rate, especially given the length and scope of the survey, indicated a high level of public interest in the issue of forest management and the environment.

The comments made have been categorised into six broad categories: Forestry management issues; political and bureaucratic issues concerned with forest management; conservation issues; economic issues; educational issues and broader environmental issues (for an overview of qualitative results, see Table 37).

6.1 Forestry Management Issues

The greatest area of concern raised throughout the qualitative response question was the necessity to maintain a balance between environmental and economic sustainability. This notion was expanded in many cases to include the comment that both environmental and economic interest groups must show greater compromise for this balance to be reached. As well, because of the sensitivity of the issue, of it being a "touchy subject", the need for decisions to be informed and objective was highlighted.

The increased use of plantations as a source of timber products was also one of the major areas of concern for respondents. It was seen by some as a more sustainable and long term solution for timber industry. The value of using native flora, such as Eucalypt plantations, rather than Pine plantations was also noted on several occasions.

The use of Hemp as an alternative source of forestry products, especially paper products, received a relatively high rate of response. This was especially so given that it was never offered as an option in the survey and comments supporting the use of Hemp were, therefore, completely unprompted.

Several comments about the appropriateness of various different land uses and forms of recreation in National Parks and State Forests were made. The use of 4WD motor vehicles and dirt bikes received both support and opposition. The importance of access to National Parks was stressed and one respondent suggested following the "American National Park model" which he claims allows "wider access and wider types of usage".

The remaining areas of concern pertaining to forestry related issues involved comment about the importance of the forest regeneration programs; anti-woodchipping sentiment and comment over the level of National Park entry fees.

6.2 Political and Bureaucratic Issues Concerned with Forest Management

Most of the areas of comment in this category received less attention from respondents than areas relating to forestry management issues. However, the managerial performance of the Forestry Commission received some attention with over twice as many respondents perceiving it as in need of improvement than those who were pleased with its current level of performance.

Other areas of comment included raising fears about the politisation of forestry issues and the media's misrepresentation of environmental concerns in this debate. As well, an Aboriginal or Torres Strait Islander respondent proposed that Aboriginal people should have a greater role in forest management.

6.3 Conservation Issues

Overall in this survey, the second most important area of concern to respondents in the open comment section was that the conservation of forested land was too limited. In particular, the preservation of areas of old growth forest was seen as being of crucial importance. The response rate of those believing that conservation needed to be increased was over five times greater than those who believed the opposite, that current levels of forest conservation were too high.

The maintenance of biodiversity and the protection of native plants and animals from exotic and feral species were other conservation issues that received relatively high levels of support. As well, several respondents stressed the importance of maintaining intergenerational equity.

6.4 Economic Issues

An important area of concern raised by respondents in the qualitative question involved the economic impact to individuals and communities of changes to forestry operations. In most cases the comments did not criticise any changed forestry practices but called on the government to provide increased assistance to the areas affected, especially in the form of education, retraining and employment. As one respondent from Murwillumbah stated “We need to educate people away from being dependent on forestry industries- things change and people just can’t fight against it on the basis that “that’s all we know”.” Similarly, some respondents pointed to the importance of promoting employment in these regions so as not to cause resentment against the environmental movement. Again quoting directly, a Suffolk Park respondent stated “In communities which will be adversely affected by anti-logging practices the government should be promoting alternative employment so as to not create an ‘anti-environmentalist’ sentiment”.

The number of comments against changes in forestry practices on the grounds of lost jobs and services was less than half the number of respondents who were positive about changes providing government assistance during periods of economic adjustment. The concerns of those against any decrease in forest industries focused on the impact of jobs losses on what are typically small communities and the loss of basic services, which could turn these places, as one respondent said, into “ghost towns”.

Views as to the viability of tourism as an alternative income source to forest industries received a mixed response from those that addressed this issue. Some saw tourism as a potential solution to the economic problems of these areas, including a Bungendore resident who proposed “ecotourism as a possible economic solution for the loss of forest industries”. However, equal numbers of respondents were pessimistic about the potential benefits of tourism to the effected regions.

6.5 Educational Issues

Relatively large proportions of respondents cited lack of knowledge as an important area of concern. Insufficient public awareness of forestry issues was seen as an area needing remedy. Several respondents saw lack of public education about both sides of the debate as being problematic. Another respondent saw education as important to make people aware of “the spiritual and environmental benefits of forests not just the economic [ones]” while a Murwillumbah resident felt the importance lay in making “these things mainstream concerns”.

The second area where many respondents deemed knowledge to be insufficient was in the scientific arena. Many respondents stated that more research needed to be done on both sides of the debate for any effective resolution of the resource use question. Some respondents claimed this would reduce the politisation of the debate. A respondent from Tweed Heads claimed that “More research by beaocrats[environmental organisations] [would] remove politics from environmental issues.”

6.6 Broader Environmental Issues

A moderate number of respondents pointed to broader environmental problems as being of importance. These included such issues as pollution, litter, recycling, degradation of agricultural land, water preservation and over population.

As well, a moderate number of respondents stated their concern about place specific environmental problems. Interestingly, in nearly every case the issue respondents chose to mention was not in their local area. This implies some people identify with environmental problems on a case-study basis rather than as a larger, broader issue.

Finally, several respondents commented on the survey itself. Two respondents found the questions hard to answer especially in a ‘yes/no’ style format. The remaining comments about the survey were all positive, especially towards the inclusion of community attitudes in the CRA decision making process.

Table 37

Summary of Qualitative Responses in Survey (N=217)	Respondents	
	Numbers	Percent
Conservation Issues		
Too little conservation	21	9.7%
Maintenance of biodiversity	10	4.6%
Intergenerational equity	9	4.1%
Too much conservation	4	1.8%
Forestry Management Issues		
Maintaining balance between environmental & economic sustainability	25	11.5%
Land use issues in National Parks & State Forests	10	4.6%
Concern about forest regeneration processes	7	3.2%
Anti-woodchipping	2	0.9%
Level of National Park entry fees	1	0.5%
Plantations	20	9.2%
Hemp	11	5.1%
Political and Bureaucratic Issues Concerned with Forest Management		
Forestry Commission management needs improvement	8	3.7%
Media misrepresentation of environmental concerns	4	1.8%
Pleased with Forestry Commission management	3	1.4%
Increased community consultation/participation	3	1.4%
Politicisation of forestry issues	3	1.4%
Increased Aboriginal role in forest management	1	0.5%
Economic Issues		
Need for new employment opportunities & economic restructuring	12	5.5%
Tourism	3	1.4%
Educational Issues		
Increased public education about forestry issues	16	7.4%
Increased scientific research about forestry issues	12	5.5%
Broad Environmental Issues		
Place specific environmental issues	9	4.1%
Environmental issues of concern	8	3.7%
About survey itself	6	2.8%
Other	9	4.1%

7.1 Concluding Comments

This report investigated the attitudes of people in NSW towards forests and forest use as part of a series of five reports. More detailed analysis of the attitudes of people in the four primary CRA regions (Eden, South, Upper North East, Lower North East) can be found in Reports 1 to 4. This report analysed the results of 2000 randomly selected telephone calls throughout NSW. Four hundred and seventy six successful interviews were conducted with New South Wales residents. There was a statewide rejection rate (those who were actually contacted as opposed to unanswered) of approximately 70 percent. The attitudes of these people remain unknown and is an unavoidable problem in any mass surveying methodology. The demographic profile of those who did respond showed a trend towards people employed in high socio-economic positions and towards people who had received further education when compared to profiles generated from 1991 Census data. The effect of these trends upon the people's attitudes is unknown and a source of debate, although it is possible that highly educated people, or those employed in occupations of high socio-economic status, may have stronger environmental value systems than the general public.

7.1 Forest Use

The respondents' attitudes towards forest use was analysed in two dimensions: current personal usage, and desired management usage. Current personal usage of forested land was of a low frequency with the majority of respondents visiting forested areas once every six months or less (Table 14). There was a high degree of uncertainty within the NSW community about the terms 'State Forests' and 'National Parks' with 47 percent of the sample being unaware of the distinctions between the two terms. Those who were aware of the differences between the two forms of land tenure were prepared to pay more money as a vehicle entrance fee to visit National Parks than State Forests, suggesting that respondents personally enjoy the experience of visiting National Parks more than State Forests and expect to pay more to enter National Parks (Table 16). The most popular personal uses of forested areas were recreational uses such as bushwalking, picnics, camping, nature appreciation and to a lesser extent swimming or surfing (Figure 16, 17).

There was a strong degree of consensus amongst respondents that managers of all types of forested areas should give high priority to the conservation values (protecting wilderness, protecting native plants and animals, protecting Aboriginal sites, maintaining sites of natural beauty, and maintaining water quality) of forests and the social values (bushwalking / picnics, educational / scientific) of forests. There was division within the sample about some forms of recreational use such as off road recreation which did not attract the same degree of support from the sample group. The economic values of forests were not seen as deserving the same priority of managers apart from timber production in State Forests. The sample was split on other extractive uses of forested land with woodchipping and paper production attracting both support and dissent within the group.(Table 18, 19). There was considerable opposition to using forested land for hunting or mining purposes. Using forested land to conserve Aboriginal sites of significance gained high support throughout the survey (D2g, D3e, D4).

7.2 Forest Values

The strength of people's economic, social and environmental values were analysed at two scales. Firstly at a non-specific macro-scale, respondents tended to place economic priorities before both social and environmental priorities when asked about their concern for various abstract issues (Figure 9). 'Unemployment' was the most frequently mentioned response when the sample was questioned about their primary concerns, followed closely by 'education', and 'the environment' mentioned by a similar number of respondents. Still at a macro-scale, but in a forestry specific context, more respondents put environmental principles (62%) before economic principles (19%) when an environment versus economic question was posed (Figure 24). This change in value orientation shows the high status forest issues possess in the structure of people's environmental concern (Figure 12).

At a micro-scale, attitudes towards forests in terms of environmental, social and economic priorities was investigated, again by looking at hypothetical micro-scale effects of broad policy decisions. When forestry products and employment were contrasted with the abundance of native plants and animals the majority of respondents opted for the environmental priority (71%) (Figure 27). This shows that in this particular situation at a micro-scale, people value the biological communities of forests more than they value the economic benefits of forests. Consequently, respondents from the NSW sample displayed commensurate environmental value structures when placed in a forest context at both macro and micro-scales. This can also be seen in the responses displayed in Figure 33 where people indicated their support for the existence of wilderness areas even if these areas are never used for economic or social reasons. These trends were not evenly distributed throughout the state with respondents in the southern CRA regions more likely to emphasise socio-economic issues concerning unemployment and the consequences of declining forestry industries (see Reports 1 and 2).

Another question was asked which contrasted micro-scale value orientations by considering a hypothetical social effect of conserving forested land (Table 32). In this case respondents again opted for the environmental priority over the social priority revealing a strong commitment to environmental values in forest contexts. Thus the majority of people thought that the environmental standards of forested land should be maintained even if this has both social and economic costs. This value orientation differs from an earlier question where respondents recognised the importance of forestry activities to small communities (Figure 22). Thus the sample indicated that they were concerned about unemployment at a macro-scale (along with environmental and other social issues) but when put into a forest context people generally ranked the environmental values of forests over the economic values of forests. The sample also believed that increased tourism could offset some of the losses if forestry activities were scaled down (Figure 25) and saw it as a potential industry that could sustain social services without effecting people's environmental values.

At a very personal level respondents indicated the main reason they valued forests was for aesthetic reasons (Figure 29). They enjoyed the beauty, space and natural experiences forests provide. They also valued forests for conservation reasons, valuing the knowledge that forest ecosystems are able to survive. The third most popular reason was spiritual - valuing forests for the way it made them 'feel'. The fourth most popular reason was intergenerational - valuing forests as an entity that can be enjoyed or used by future generations.

There were considerable differences and conflicts suggested within the sample, nonetheless the general trend was that environmental values ranked as high priorities at the macro-scale (alongside issues such as employment) and were commensurate with the micro-scale prioritisation of the environment within forest contexts. Forests have a very strong symbolic environmental value that people want to preserve even if this is seen to cause local social and economic difficulties.

7.3 Regional Differences

The results of the NSW-wide report attempts to accurately represent the whole of the NSW population but in the process obscures important regional differences in attitudes and opinions. Reports 1 to 4 investigate the responses of people in the four key CRA region and reveals the importance of place upon attitudes. The importance given to environmental values by respondents from the NSW South Coast CRA regions (Eden CRA and South CRA) differs significantly from those on the NSW North Coast CRA regions (Upper North East and Lower North East). For example respondents from the South CRA region placed varied emphasis on economic and environmental priorities dependent upon the geographic and conceptual scales at which questions were asked. In contrast, respondents from the Lower North East CRA region demonstrated commensurate value structures operating across geographical and conceptual scales - with particular emphasis on recreational and conservation uses of forests. Meanwhile, the importance of forestry activities for some small communities was recognised across all key CRA regions identified in the scope of this project. For further detail on the complex relationship between environmental, social and economic values in each of these regions, refer to Reports 1 to 4 in the Community Attitudes Towards Forest Series.

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