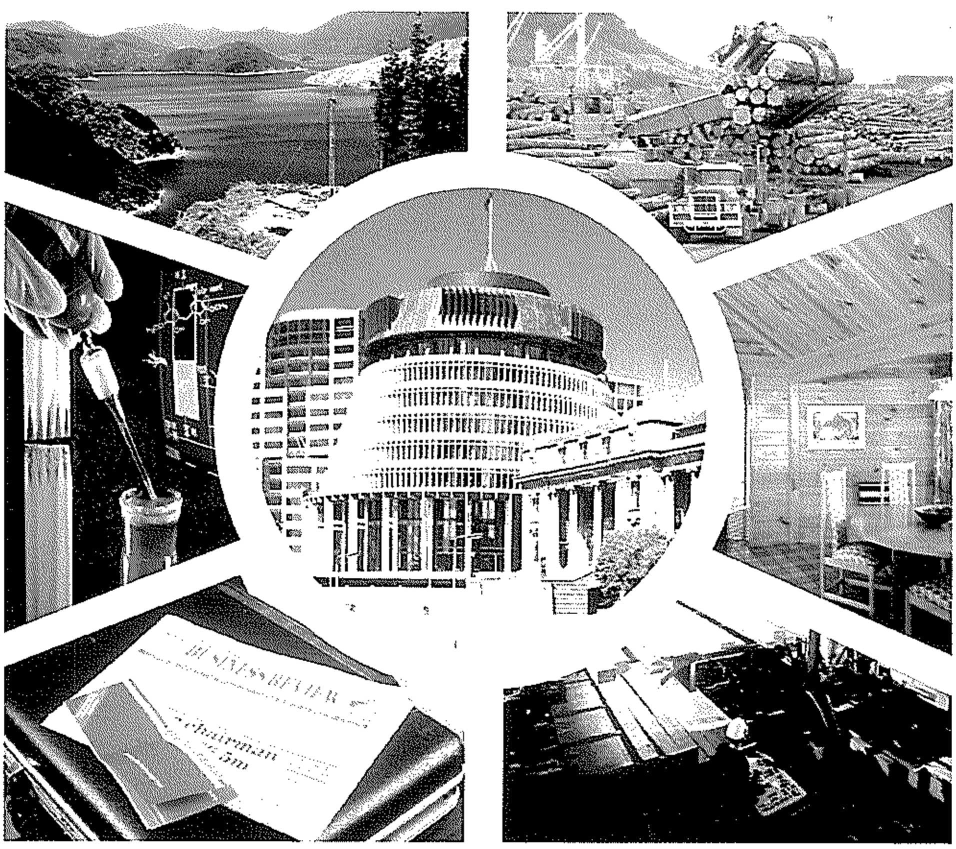
LOGGING INDUSTRY RESEARCH ORGANISATION

NEW ZEALAND

PROJECT REPORT

POLITICIANS' OPINIONS ABOUT THE NEW ZEALAND FOREST INDUSTRY 1996

SHAUN KILVERT



New Zealand Forest Industries Council

Project Report

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LIRO Limited
P.O. Box 2244
Rotorua
NEW ZEALAND

POLITICIANS' OPINIONS ABOUT THE NEW ZEALAND FOREST INDUSTRY 1996

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Prepared for the
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by:

Shaun Kilvert
Environmental Researcher
Logging Industry Research Organisation

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For information, contact: The Chief Executive Officer, LIRO Limited, P.O. Box 2244, Rotorua, New Zealand.

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EXECUTIVE SUMMARY

A comprehensive survey of politicians' attitudes and opinions about the New Zealand forest industry was undertaken during June 1996. Commissioned by the New Zealand Forest Industries Council (FIC), the survey was conducted by the Logging Industry Research Organisation (LIRO). There were 105 target respondents: 98 Members of Parliament and seven leaders of political parties without seats in Parliament. A total of 35 questionnaires were completed, giving an overall response rate of 33.3%. The only major party or coalition not represented in the survey was New Zealand First.

Data analysis included tabulating responses (a) overall and (b) by political groups. Respondents were divided into two groups: those from left-of-centre parties (n=19) and those from centre-right parties (n=16). This simple two-way division reflected the thesis that New Zealand politics has historically only had a single ideological dimension based on socio-economic philosophies. The division also aimed to maintain the anonymity of individual respondents as far as practicable. Chi-square analysis was used to test for any significant differences in opinions between these two groups.

The survey revealed important differences in attitudes and opinions between the left-of-centre and centre-right respondents. In particular, left-of-centre politicians expressed a much higher level of concern about almost every issue raised in the questionnaire. The only issues for which centre-right respondents were more concerned involved forestry truck driver conduct, visual impacts of logging, and the potential effects of replacing pasture with forests.

The forest industry received high marks for its economic performance, being described as a "*success story*" and "*glamour investment*". However, virtually all of the politicians surveyed were of the opinion that they would prefer to see more domestic processing and value-adding, and fewer logs being exported for processing overseas. Several respondents stated that they felt the economic, industrial and political conditions needed to achieve these outcomes were lacking. There existed ideological differences of opinion regarding the extent to which Government should actively encourage increased value-adding and reduced log exports.

Virtually all of the survey respondents (97%) did not perceive foreign investment to be harmful to the New Zealand economy. Indeed, most saw it as being both extremely beneficial and essential. However, almost half of the politicians from left-of-centre parties were very concerned about foreign ownership of New Zealand's resources, particularly land. These respondents also felt that large corporations and foreign-owners may have less commitment to this country's economic development, community welfare, and environment.

Most of the politicians surveyed (80%) were of the opinion that the social benefits of forestry far outweighed any negative impacts. The one major concern involved the increasing demands that forestry was placing on New Zealand's infrastructure, particularly roads and ports. Indeed, the majority - especially those from left-of-centre parties - were of the firm opinion that forestry causes more damage to New Zealand's roads than any other single industry.

Environmental performance, though satisfactory, was regarded as needing improvement - particularly in relation to the processing industries. Many politicians felt that the industry needed to improve waste disposal, reduce pollution, and reduce the use of chemicals such as chlorine. Respondents from left-of-centre parties were also strongly of the opinion that the industry needed to diversify the species grown in New Zealand's planted production forests (84% were concerned or very concerned about monoculture) and give greater consideration to wildlife conservation (58% did not believe the forest industry was taking wildlife issues seriously enough).

It is important to note, that whilst most centre-right politicians stated that environmental performance standards were generally (a) strong enough and (b) being met by the forest industry, respondents from left-of-centre parties took a somewhat opposing view. Many (42%) of the latter believed that existing requirements were not being met, and the majority (69%) stated that the environmental performance standards - particularly those relating to the processing industries - needed to be strengthened.

The forest industry also needed to improve its public image. Many politicians felt that the industry continued to have a poor public relations record, was not civic-minded enough, and must give greater attention to educating the wider community about the forestry sector, particularly with regard to environmental initiatives.

The forecast expansion of New Zealand's planted forest estate to 3.5 million hectares by the year 2020 was seen as a boon for the New Zealand economy. It would benefit most New Zealanders - particularly Maori - by providing a renewable and sustainable resource, more foreign investment, new jobs, skills training and career opportunities. Even so, the survey respondents generally believed that, over the next 25 years, the tourism and manufacturing industries would contribute more to New Zealand's overall social, economic and environmental well-being than the forest industry. The majority (54%) of respondents also stated that any forest expansion should not be at the expense of fertile soils better suited to pastoral agriculture.

1 - INTRODUCTION

During the 1970s and 1980s, the forest industry was 'thinking big' in terms of setting national and regional forest estate targets. Levack (1991) argued that, at the same time, through a poor public relations performance, the industry successfully alienated itself from the people of New Zealand. The industry developed a poor public image and failed to work with interest groups. Consequently, the forestry profession was "attacked by .... environmentalists, farmers, planners, school teachers, politicians and a broad selection of other influential people" (Levack 1991 p.2). There was an inevitable backlash against forestry through the public's elected local politicians.

Research on the public's attitudes and opinions regarding the forest industry is of vital importance for (a) recognising key socio-economic and environmental concerns and (b) developing effective communication and marketing strategies. Over the past four years, the New Zealand Logging Industry Research Organisation (LIRO) has undertaken a number of studies on the attitudes of foresters, recreationalists, environmentalists, students, adjacent landowners and the general public regarding the visual and environmental impacts of logging (Killerby 1992; Kilvert and Hartsough 1993; Kilvert 1994, 1995 and 1996). At the same time, the New Zealand Forest Owners Association (NZFOA) has researched the general public's attitudes and opinions about the forest industry as a whole, particularly with regard to socio-economic performance and environmental issues (NZFOA 1995a and 1996).

While the studies listed above evaluated the concerns of a wide variety of public interest groups, those of key decision-makers had not yet been assessed. This, despite the fact that the attitudes and opinions of planners and politicians can have a direct bearing on the development and implementation of incentives and constraints for the forest industry. In order to begin redressing this lack of information, the New Zealand Forest Industries Council (FIC) contracted LIRO to undertake a survey of politicians' opinions about the New Zealand forest industry in June 1996.

2 - RESEARCH OBJECTIVES

The objectives of this research were:

1. To determine current attitudes of politicians towards the commercial forest industry in New Zealand.
2. To identify and explore specific issues and concerns held by politicians.
3. To establish a questionnaire and attitudinal benchmark for use in future research.
4. To introduce and reinforce the role and development of the forest industry to political decision-makers.

3 - RESEARCH METHOD

The research involved quantitative analysis of attitudinal data obtained through the use of a written questionnaire.

Questionnaire Design

The questionnaire (see Appendix) contained a mixture of open questions, closed questions, and attitudinal scales (Oppenheim 1992). Respondents were requested to answer the open questions in their own words, whereas the closed questions required the selection of a set response. The respondents were also requested to provide ratings according to set attitude scales, such as the three-point scale of concern: very concerned, concerned, unconcerned.

There were six sections in the questionnaire. The first section consisted of nine general knowledge questions aimed at assessing how well the respondents understood the New Zealand forest industry. This section was also designed to reinforce the fact that the survey was concerned with commercial forestry based on planted production (not indigenous) forests. In Section 2 respondents were asked to state which forestry-related issues they perceived - unprompted - to be most important at the time of the survey, both at a national and electorate level. In Section 3 respondents rated the current economic and environmental performance of the New Zealand forest industry, and provided statements on why they felt the industry deserved these scores. In Section 4 respondents were asked for their opinions about a host of specific forestry-related issues, including the social performance of the forest industry, whilst assessment of their level of concern about these issues was addressed in Section 5. Finally, in Section 6 respondents ranked forestry's potential contribution to New Zealand's overall economic, social and environmental well-being over the next 25 years relative to four other industries: agriculture, manufacturing, tourism and fishing.

Target Respondents

The target respondents for this survey were 105 politicians: 98 Members of Parliament (MPs), plus seven leaders of political parties without seats in Parliament.

Note that the time of the survey there were 98, rather than 99, MPs; the Hawkes Bay seat was vacant after the resignation of Michael Laws (New Zealand First) from Parliament on 29 April 1996. The Government consisted of 48 MPs: 41 from the New Zealand National Party and seven from the United New Zealand Party. They were supported by an MP from the Christian Coalition, the leader of the Christian Democrats. In Opposition were 41 MPs from the New Zealand Labour Party, four MPs from the New Zealand First Party, and two MPs from the Alliance (the leaders of the NewLabour Party and Mana Motuhake Inc.). The leader of the New Zealand Conservative Party and an Independent MP were equivocal (Boston *et al.* 1996 p.196).

In addition to the MPs, the survey included seven leaders of political parties without seats in Parliament. These included the leaders of three other parties in the Alliance (the New Zealand Democratic Party Inc., New Zealand Liberal Party Inc., and Green Party of Aotearoa/New Zealand), plus the leader of the Christian Heritage Party of New Zealand (a partner in the Christian Coalition).

Data Collection

It was originally intended to interview the target respondents over the phone in order to get a rapid response rate. The questionnaire was consequently designed to take 20 to 30 minutes to complete. A letter of introduction, asking respondents whether or not they would be willing to take part in the survey, was sent to all of the 105 target respondents in early June. This letter was followed up with a phone call.

As most of the MPs stated that they would only take part in the survey if they could peruse the questions first, the questionnaire was then either faxed or mailed to all of the target respondents who had stated that they were willing to participate or had not stated otherwise. This was done to ensure that no respondents were put at a disadvantage. It was requested that questionnaires be completed and returned prior to July 8 1996. Note that several politicians chose to answer the questionnaire over the phone, and three respondents did so without having first perused the questionnaire due to their eagerness to participate.

Response Rate

A total of 35 politicians participated in the survey, giving an overall response rate of 33.3%. Twenty-eight MPs (including four Cabinet Ministers) took part, as did all seven of the leaders of political parties without seats in Parliament. Most of the party leaders in the Alliance participated by proxy. They discussed the survey and replied that they all fully endorsed the responses of their spokesperson from the Green Party.

Table 1 illustrates the response rate by political party or coalition. The one party/coalition not represented was New Zealand First. All of the MPs from this party stated that they were either too busy or were reluctant to take participate in surveys for fear of misinterpretation.

Table 2 shows response rate by geographic region. Overall, 28.9% of the MPs took part. One of the four Maori seats, 29.2% of the electorates in the main urban centres, and 28.3% of the remaining electorates were represented. There were, unfortunately, no participants from Northland, Bay of Plenty, Taranaki, Nelson-Marlborough or Dunedin City.

Data Analysis

Frequencies of responses were tabulated and various statistics (such as the range, median, mode and mean) calculated.

Table 1: Response rate by political party or coalition

TARGET RESPONDENTS				RESPONSE	
Political Party or Coalition	MPs	Non-MP Leaders	Total	n	%
Independent	1	0	1	0	0.0
New Zealand Conservative Party	1	0	1	1	100.0
Christian Coalition	1	1	2	1	50.0
The New Zealand National Party	41	0	41	10	24.4
United New Zealand Party	7	0	7	3	42.9
New Zealand First Party	4	0	4	0	0.0
New Zealand Labour Party	41	0	41	12	29.3
The Alliance	2	4	6	6	100.0
Other	0	2	2	2	100.0
TOTAL	98	7	105	35	33.3

Table 2: Response rate by geographic region

Electorates	Total MPs	Response	Rate (%)
Maori Electoral Regions	4	1	25.0
Main Urban Centres:			
Auckland Metropolitan Area	25	8	32.0
Hamilton City	2	1	50.0
Wellington Metropolitan Area	10	2	20.0
Christchurch City	8	3	37.5
Dunedin City	3	0	0.0
Regions:			
Northland	4	0	0.0
Waikato	8	3	37.5
Bay of Plenty	6	0	0.0
East Coast	4	2	50.0
Taranaki	2	0	0.0
Manawatu-Wanganui	8	3	37.5
Nelson-Marlborough	3	0	0.0
Canterbury-Westland	6	3	50.0
Otago-Southland	5	2	40.0
TOTAL	98	28	28.9

In order to assess whether there were any significant differences in opinions due to polititical ideology, responses were divided into two categories: left-of-centre (n=19) and centre-right (n=16). This simple two-way division allowed virtually all opinions to be mentioned whilst maintaining the anonymity of the source as far as practicable. It also reflected the thesis that New Zealand, along with the United States and Great Britain, has historically "only [had] a single interparty ideological dimension" (Lijphart 1981 pp.28-29) - namely, the socio-economic dimension.

Lijphart (1981) has distinguished seven ideological dimensions by which parties can be classified: socio-economic, religious, cultural-ethnic, urban-rural, foreign policy, regime support, and postmaterialism. Debate over the role of the State in economic planning, ownership of resources, redistribution of wealth, and the expansion or diminution of social welfare programmes are the main features of the socio-economic dimension. These issues have dominated New Zealand politics until now and, as a result, New Zealand has been categorised as having a unidimensional party system (Boston *et al.* 1996).

Table 3 shows the primary ideological dimension of each of the main political parties at the time of the survey. It illustrates that 91 of the 98 MPs were from parties which "still derive their distinctiveness from socio-economic and related issues" (Boston *et al.* 1996 p.58). Note that the New Zealand Conservative Party was classified as urban-rural due to the former-Right of Centre Party's original plans to strengthen rural and provincial advocacy in Parliament (Boston *et al.* 1996).

Table 3: The main political parties and their principal ideological dimension

Ideological Dimension	Political Parties
Socio-economic	The New Zealand National Party, New Zealand Labour Party, NewLabour Party, United New Zealand Party, The New Zealand Democratic Party Inc., The New Zealand Liberal Party Inc., ACT New Zealand
Religious	Christian Democrats, Christian Heritage Party of New Zealand
Urban-rural	New Zealand Conservative Party
Cultural-ethnic	New Zealand First Party, Mana Motuhake Inc.
Postmaterialism	The Green Party of Aotearoa/New Zealand

Source: Adapted from Boston *et al.* 1996, p.59

In terms of socio-economic orientation, Boston *et al.* (1996) arranged the political parties and coalitions in New Zealand on a nominal left-right continuum. From left to right, the order of the parties/coalitions was: the Alliance, New Zealand Labour Party, New Zealand First Party, United New Zealand Party, New Zealand National Party, Christian Coalition, New Zealand Conservative Party, and ACT New Zealand (Boston *et al.* 1996 pp.58-59). A position further to the left indicates greater willingness to intervene in the organisation, production and distribution of wealth and welfare. A position further to the right indicates that the party is less inclined to intervene in the economy.

Although there may be debate over the position of different parties and MPs on the left-right spectrum described above, it was nevertheless a useful summary. Consequently, it was employed to derive the simple left-right categorisation used in this survey. The ACT New Zealand, New Zealand Conservative Party, Christian Coalition, New Zealand National Party, United New Zealand Party and independent respondents were all classified as centre-right; the rest were classified as left-of-centre. Whilst the United New Zealand Party MPs may be regarded as occupying a central position on the political spectrum, they were amalgamated with the centre-right respondents due to (a) the party being in a formal Coalition Government arrangement with the New Zealand National Party and (b) being too small an independent sample for the purposes of statistical analysis.

Chi-square (χ^2) tests were used to calculate the independence of responses from left-of-centre and centre-right participants (α significance level=0.05) (Runyon and Haber 1989).

4 - CONTEXT

In considering the respondents' attitudes about the New Zealand forest industry and opinions about specific forestry-related issues, the topical issues at the time of the survey must be borne in mind.

The main issues in the news during June 1996 included:

- pollution from the forest industry, particularly emissions from pulp and paper mills;
- use of chemicals in the forest industry;
- foreign ownership of New Zealand's forests;

- the sale of the Forestry Corporation of New Zealand Limited and cutting rights for Kaingaroa State Forest;
- pests and border control; and,
- the social effects of mill closures.

During June there was a highly publicised Greenpeace campaign (part of the "Poisons in Paradise" Tour) against the use of chemicals by, and pollution from, the Tasman Pulp and Paper Mill in Kawerau. A Greenpeace campaign vessel anchored off the Bay of Plenty coast, and environmental activists breached security at the mill and chained themselves to railway lines as a sign of protest.

There was national debate about foreign ownership of New Zealand's resources. This debate accompanied a sharp rise in the popularity of the New Zealand First Party during the run-up to New Zealand's first election under the new Mixed Member Proportional (MMP) electoral system.

Much debate surrounded the proposed sale of the Forestry Corporation of New Zealand Limited, which included sale of the cutting rights for Kaingaroa State Forest. The Alliance launched the "Save Our Forests" Campaign, aiming to collect 250,000 signatures and thus force a Citizens' Initiated Referendum on the sale to coincide with the October 12 election. In that campaign, the Alliance argued that: Kaingaroa Forest is the last major block of publicly owned plantation forest in New Zealand; all prospective purchasers were substantially foreign owned, thus profits would go overseas; the New Zealand Government was unlikely to get a good price; there were no guarantees of new investment or job security; and, giant multi-national companies may not be interested in adding-value, eco-certification, or maintaining the New Zealand environment.

Tussock Moth eggs found in Auckland gardens were also in the news. Plans to exterminate this new pest, before it found its way into New Zealand's forests, were being devised. Extermination would involve aerially spraying organic pesticide over several Auckland suburbs during the spring ("Operation Ever Green").

There was also media attention on the social effects of closing the Carter Holt Harvey's Kensington Road timber mill in Marton. Sixty mill workers were losing their jobs (Legat 1996).

This was the fourth major business closure in Marton in recent years: railway activity had ceased, a psychiatric hospital had closed, and a ward of the local hospital had just been shut down. As a consequence, the mayor of the town had written to the chairman of International Paper, Carter Holt Harvey's major shareholder, in an attempt to persuade him to intervene for the sake of a small rural community.

A senior writer for the North and South magazine described Marton as "a case study of provincial New Zealand under stress" and stated that "Carter Holt Harvey's corporate image had been badly dented in the town" (Legat 1996 p.87, 95)

5 - RESULTS

GENERAL KNOWLEDGE

Respondents were informed at the outset that the survey referred specifically to New Zealand's commercial forest industry based on planted production forests. To reinforce this fact, while at the same time examining how much the respondents knew about the forest industry, survey participants were presented with nine short general knowledge questions.

Note that the utility of these questions for ascertaining respondents' current knowledge about the industry was compromised by the survey design having been changed from phone interviews to mail-out questionnaires. The survey participants consequently had the opportunity to research the facts. The general knowledge questions were kept in the survey, however, as researching the facts would still "introduce and reinforce the role and development of the forest industry to political decision-makers", one of the prime objectives of this survey.

Planted production forests

All of the respondents recognised the fact that radiata pine (*Pinus radiata*) is the main commercial species of tree grown in New Zealand. Approximately 90.5% of the area of New Zealand's plantation forests was planted in radiata pine as at April 1994 (NZFOA 1995b), the remaining 9.5% being mainly made up of Douglas fir (*Pseudotsuga menziesii*), macrocarpa (*Cupressus macrocarpa*), Australian blackwood (*Acacia melanoxylon*), and various varieties of *Eucalypt* (NZFOA 1995b; Ministry of Forestry 1993).

All of the respondents also recognised that radiata pine is not native to New Zealand. Its natural habitat consists of three distinct areas of coastal California and two islands off the coast of Mexico (Ministry of Forestry 1993).

Radiata pine trees grow very quickly in New Zealand and are generally ready to harvest in 25 to 30 years (Ministry of Forestry 1993). This fact was recognised by almost all of the respondents, the median and modal response being 25 to 30 years. The full response range was 15 to 40 years (Table 4).

When asked whether or not New Zealand's forests are generally replanted after harvest, 97.2% of the respondents replied in the affirmative. There was one respondent (from a party on the left) who did not believe this to be the case.

The geography of forestry

The total area of New Zealand is 27.0 million hectares. Of this total, approximately 5% (1.5 million hectares) was in planted production forests, and 24% (6.4 million hectares) in natural forest, as at April 1994 (NZFOA 1995b).

Table 4: Age of New Zealand's radiata pine trees at usual final-harvest

Age of *P.radiata* at usual final-harvest (min.-max.)	Range (years)	Mode (years)	Median (years)	Mean (years)
Left-of-centre (n=19)	15 - 35	25 - 30	25 - 30	23.2 - 28.2
Centre-Right (n=16)	20 - 40	25 - 30	25 - 30	26.9 - 29.3
Total (n=35)	15 - 40	25 - 30	25 - 30	24.9 - 28.7

Table 5: Percentage of New Zealand's land area in planted production forests

Percentage of New Zealand in planted forests (min.-max.)	Range (% area)	Mode (% area)	Median (% area)	Mean (% area)
Left-of-centre (n=16)	1 - 12	6	6.0	6.2 - 6.4
Centre-Right (n=14)	2 - 25	5	5.0 - 5.5	7.9 - 8.9
Total (n=30)	1 - 25	5, 6	6.0	6.8 - 8.3

There was a wide range of responses - from 1% to 25% - when politicians were asked to state what percentage of New Zealand's land area is currently in planted production forests (Table 5). Five respondents were unsure and would not provide an approximation. Those who did respond to the question generally gave an answer of 5% or 6%. Note, however, that several respondents thought that the area of New Zealand in planted production forest was far greater than 5%. This pushed the mean range up to around 6% to 9%.

When asked to state in which part of New Zealand most of New Zealand's planted production forests were currently located, most politicians (91.4%) correctly said the "*Central North Island*" or "*Waikato/Bay of Plenty*". The remainder (8.6%) were less specific, simply stating that most of New Zealand's plantation forests are located in the "*North Island*". Approximately 35% of New Zealand's planted production forests were located on the pumice soils of the central North Island as at April 1994 (NZFOA 1995b).

Forest companies

Respondents were asked to name as many forest-owning companies in New Zealand as they could think of. Most could name about five, though the mode was seven and the range 0 to 15. The companies named most frequently are shown in Table 6. There was naturally a strong relationship between the percentage of New Zealand's forest estate owned by the company and name recognition.

Table 6: Forest-owners listed most frequently

Forest companies listed most frequently	Forest Area Owned (% in '94)	Left-of-centre (n=19) (%)	Centre-Right (n=16) (%)	Total (n=35) (%)
Fletcher Challenge Forests	15	89.5	100.0	94.3
Carter Holt Harvey Forests	23	84.2	93.4	88.6
Forestry Corporation of New Zealand	12	68.4	56.2	62.9
Rayonier New Zealand	7	52.6	56.2	54.3
Juken Nissho	4	42.1	37.5	40.0
Ernslaw One	2	36.8	43.8	40.0
Wenita Forest Products	2	42.1	37.5	40.0
Timberlands West Coast	2	5.3	31.2	17.2
Oji Sankoku	2	5.3	12.5	8.6

Table 7: Number of people employed in forestry and processing activities

Number of people employed in forestry and processing	Range (,000)	Mode (,000)	Median (,000)	Mean (,000)
Left-of-centre (n=17)	3 - 150	25	25	29.0 - 34.4
Centre-Right (n=12)	5 - 80	10, 20, 30	30	22.2 - 24.7
Total (n=29)	3 - 150	25	25	26.2 - 30.7

In April 1994, the largest owners of New Zealand's planted production forests were: Carter Holt Harvey Forests (23%), Fletcher Challenge Forests (15%), the Forestry Corporation of New Zealand (12%), Rayonier New Zealand (7%), Juken Nissho (4%), Wenita Forest Products (2%), Ernslaw One (2%), Oji Sankoku (2%), and Timberlands West Coast (2%). Another 8% of forest was held by the Crown or was in Crown Leases, while the remaining 23% was mainly owned by small forest owners with less than 50 hectares of forest (NZFOA 1995b).

Employment

When the politicians were asked to state how many people they thought were currently employed in forestry and processing activities, responses ranged from 3,000 to 150,000 (Table 7). Six respondents were unsure and declined to give an estimation. Of the remainder, most accurately estimated that around 25,000 to 30,000 were employed. Approximately 29,000 people were employed in forestry and processing activities in New Zealand as at April 1994 (NZFOA 1995b).

Export earnings

Forest products accounted for approximately 12% of New Zealand's export earnings in the year ended June 1994 (Statistics New Zealand 1995).

When the politicians were asked to state what percentage of New Zealand's exports they believed that forest products currently accounted for, responses ranged from 8% to 25% (Table 8). Four of the survey participants were unsure and declined to provide an estimation. Of the remainder, most thought that forest products account for around 13% to 15% of export earnings. Responses were higher from politicians in left-of-centre parties, where a number of respondents were of the opinion that forest products already accounted for 20% or even 25% of New Zealand's export revenue.

Table 8: Percentage of export earnings accounted for by forest products

Percentage of New Zealand's export earnings (min.-max.)	Range (% earnings)	Mode (% earnings)	Median (% earnings)	Mean (% earnings)
Left (n=18)	10 - 25	12 - 20	15.0 - 17.5	14.0 - 16.4
Right (n=14)	8 - 25	10	12.5 - 13.0	13.3 - 13.4
Total (n=32)	8 - 25	15 - 20	13.0 - 14.0	12.8 - 15.1

MAIN FORESTRY ISSUES

In Section 2 of the questionnaire, the survey respondents were asked to state which forestry-related issues they perceived to be most important at the time of the survey, both at a national level and within their own electorate. Answers were unprompted and in the respondents' own words, therefore these questions can only be regarded as a scoping exercise. The results only indicate which issues are so important that they come readily to mind.

The need for more manufacturing or value-adding, the sale of cutting rights to Kaingaroa Forest, and the effects of increasing usage of public roads for the transportation of logs and timber were the three most important issues in New Zealand at the time of the survey (Table 9).

The need to increase the diversity of species grown in New Zealand's planted production forests, reducing the use of chemicals in the forest industry (an issue which Greenpeace were campaigning about at the time of the survey), and the need to encourage public certainty about replanting and reinvestment were referred to as other particularly significant issues by left-of-centre respondents.

In contrast, centre-right respondents felt that the other fairly significant issues were pests and border control (particularly with the sighting of Tussock Moth eggs in Auckland), and the need to encourage a favourable economic climate for investment in forestry.

Issues raised by only one or two left-of-centre respondents, and thus not shown in Table 9, included:

- the adverse visual impact of logging;
- the social effects of forestry (particularly with regard to the mill closure in Marton); and
- maintaining public support for privatisation.

Table 9: Issues perceived (unprompted) to be most important in New Zealand

Forestry-related issues perceived (unprompted) to be most important in New Zealand at the time of the survey	Left-of-centre (n=19) (%)	Centre-Right (n=16) (%)	Total (n=35) (%)
Need for more manufacturing/value-adding	79.0	68.8	74.3
Sale of cutting rights/NZ ownership of resources	57.9	43.8	51.4
Roading issues (increasing use, damage)	36.8	37.5	37.1
Monoculture/need to diversify species grown	42.1	12.5	28.6
Resource management (effects, sustainability)	21.1	25.0	22.9
Pests and diseases	0.0	43.8	20.0
Reducing the use of chemicals	31.6	0.0	17.1
Investment and favourable economic climate	5.3	31.3	17.1
Replanting and reinvesting	21.1	0.0	11.4
Management of indigenous forests	10.5	12.5	11.4
Management of land-use change	5.3	18.8	11.4
Employment issues (training, skills development)	5.3	12.5	8.6

Issues raised by only one or two centre-right respondents included:

- the use of planted forests as carbon sinks;
- the need for more research and development;
- eliminating trade tariffs;
- Maori land claims;
- fire risk;
- unwanted environmental constraints on forest development;
- the need for more forest planting incentives;
- health and safety in the forest industry;
- local prices;
- overseas prices;
- crop quality;
- product branding;
- market development;
- port development;
- land values;
- cost and availability of energy;
- public opinion about clearfelling; and
- *"fear of a coalition Government"* (post-October 1996) *"that is unfamiliar with the issues involved in the New Zealand forest industry"*.

Next, respondents were asked to state what the main issues were in their electorates. Ten respondents did not answer this question, mainly due to the fact that they resided in urban areas where they perceived that there were no forestry-related issues.

The two main forestry-related issues raised were concern about the sale of cutting rights to Kaingaroa State Forest and the need for more manufacturing or value-adding (Table 10). Centre-right respondents also felt that there was some concern about the increasing usage of public roads for the transportation of logs and timber, and the effects of land-use change - from pasture to forests - both in terms of loss of productive land and negative effects on small rural communities. Indeed, these respondents stated that there may be considerable public antagonism against forestry because of rural depopulation and expansion onto productive land.

Issues raised by only one or two left-of-centre respondents included:

- concern about the need for more comprehensive planning concerning land-use change;
- poor public relations;
- lack of consideration for communities;
- job creation;
- the need for more local processing;
- management of indigenous forests; and
- maintenance of crop quality.

Table 10: Issues perceived (unprompted) to be most important in electorates

Forestry-related issues perceived (unprompted) to be most important in electorates at the time of the survey	Left-of-centre (n=13) (%)	Centre-Right (n=12) (%)	Total (n=25) (%)
Sale of cutting rights/NZ ownership of resources	53.9	25.0	40.0
Need for more manufacturing/value-adding	23.1	33.3	28.0
The effects of land-use change	7.7	33.3	20.0
Roading issues (increasing use, damage)	0.0	33.3	16.0
Employment issues (training, skills development)	7.7	16.7	12.0

Other issues mentioned by one or two centre-right respondents included:

- the need to diversify the number of species grown in New Zealand's planted production forests;
- the need to encourage a favourable economic climate for investment in forestry;
- local prices;
- Maori land claims;
- unwanted environmental constraints on forest development;
- the need for more research and development;
- the need for better and more comprehensive planning about land-use change;
- job creation;
- the need for more local processing;
- the cost and availability of energy; and
- concern about the spread of wilding pines.

ENVIRONMENTAL ISSUES

Having ascertained which issues were perceived - unprompted - to be of particular concern at a national and electoral level, the survey proceeded to examine politicians' attitudes and opinions about specific topics.

Environmental performance ratings

(a) The logging industry

Respondents were asked to rate the current environmental performance of the New Zealand logging industry on a scale of 0 to 10, where 0 indicated very poor performance and 10 very good performance. Responses ranged from 4.0 to 9.5, with the mean rating being 6.4 (Table 11). Left-of-centre respondents tended to be slightly more critical of the industry's current environmental performance.

Respondents who gave a rating of less than 6.4 stated that the logging industry has "*not really sold itself as being particularly environmentally friendly*", and "*environmental lobby groups draw attention to the negative aspects of logging*". Several politicians felt that there were still some "*cowboys*" in the industry and "*a number of unsustainable practices continued to be used*". Consequently, "*very rough-looking operations may be observed*".

There were statements to the effect that the industry "*does not yet have a good understanding of the concept of sustainability*" and "*there is yet a long way to go in order to meet the performance standards required by the Resource Management Act*" (RMA). These respondents understood that the logging industry is aware of the RMA's requirements, but stated that "*if loggers can take shortcuts they will*".

They stated that the logging industry may improve its rating by:

Table 11: Current environmental performance of the logging industry

Environmental Performance Rating	Left-of-centre (n=19)	Centre-Right (n=16)	Total (n=35)
Range	4.0 - 9.5	5.0 - 8.5	4.0 - 9.5
Mode	6.0	6.0, 7.0	6.0
Median	6.0	7.0	6.0
Mean	6.2	6.6	6.4

- using more site-specific harvest planning, rather than "*adopting blanket approaches to forest management*";
- restoring skid sites;
- improving safety and training;
- having more involvement with small companies and the community;
- using selective logging in some areas;
- giving due consideration to the visual impacts of clearfelling; and
- giving greater consideration to the travelling public in planning road access and transportation of logs, rather than "*planning transportation solely on the basis of cost*".

Several respondents realised that "*some innovative approaches were being used*" but maintained that there was "*still considerable room for improvement*".

The respondents who gave a rating greater than 6.4 were of the opinion that the performance of the logging industry was generally very good. Performance was "*vastly improved on the situation ten years previously*". There had been "*good development of methods and systems*", with "*a number of innovative ideas still being developed*".

Several respondents felt that, to some extent, the logging industry "*has had to be coerced into accepting its environmental responsibilities*" and that "*it should have been looking further ahead*". However, there now appeared to be a fairly responsible attitude to replanting and "*making good the land*".

Generally, companies were now seen to be more sensitive to environmental issues, though there was "*still some room for improvement*". A couple of politicians felt that the industry needed to do more publicising about what it is doing in terms of environmental issues, together with a public education programme about clearfelling.

(b) The processing industries

Respondents were then asked to rate the current environmental performance of the processing industries on a scale of 0 to 10. Ratings were generally lower than those for the logging industry. Responses ranged from 2.0 to 9.0, with the mean rating being 5.4 (Table 12). Left-of-centre respondents tended to be more critical of the processing industries' current environmental performance. One centre-right respondent did not provide a rating.

The politicians who provided a rating of less than 5.4 were concerned about:

- "*suspicious outpourings*" into waterways;

Table 12: Current environmental performance of the processing industries

Environmental Performance Rating	Left-of-centre (n=19)	Centre-Right (n=15)	Total (n=34)
Range	2.0 - 9.0	4.0 - 7.0	2.0 - 9.0
Mode	4.0	6.0	6.0
Median	5.0	6.0	5.0
Mean	5.1	5.8	5.4

- the use of chlorine at the Tasman Pulp and Paper mill in Kawerau, despite recent improvements;
- toxic treatment chemicals in sawmills; and
- old mills being *"archaic, poorly designed and unattractive"*. The Kawerau Mill was described as "particularly dreadful", and there was uncertainty as to *"whether or not it would be economic to fix the problems there"*.

Environmental guidelines for the processing industries were regarded as having been *"historically inadequate"*. There was also a feeling that the industry has been *"very reluctant to make any improvements"*. Indeed, several respondents felt that there *"continued to be little recognition of the need to change"* even at the time of the survey, despite bad press from the Greenpeace campaign.

The general sentiment was that, despite *"newer plants being much improved over older ones"*, there were *"many problems which had not yet been fixed"*. Until the processing industries were *"up to standard"*, these politicians would not be satisfied. There was also an urgent need for the forest industry to do some public relations work in the wake of the Greenpeace campaign, *"reassuring the public that improvements would be made"*.

Respondents who gave a rating greater than 5.4 were of the opinion that the performance of the processing industries was generally acceptable. However, they also stated that there was *"still considerable room for improvement"*. There were outstanding issues of concern such as:

- timber preservation methods;
- use of chlorine and *"toxic chemicals"*;
- water pollution; and
- air pollution, particularly from the larger processing plants such as those in the developing fibreboard industry.

Newer plants were seen as being superior to the older ones, though there remained a need to *"improve energy efficiency"* and *"reduce carbon dioxide emissions"*. Respondents stated that there were *"environmentally friendly technologies available which could be used"*, though *"probably even these will not be satisfactory to the environmental pressure groups"*.

There was a feeling by these respondents that *"the RMA will help coerce the processing industries into improving their environmental performance"*. Indeed, *"the industries are responding - but unfortunately not fast enough, especially regarding the use of chemicals such as chlorine"*. They expected that *"there will always be problems in this part of the forest industry"*, and as a consequence there *"needs to be more baseline information about the environmental effects of processing"*, *"more monitoring"*, and *"more demands for cleaning up the environment"*.

(c) The New Zealand forest industry

When asked to rate the current environmental performance of the forest industry as a whole (on a scale of 0 to 10), responses ranged from 4.0 to 8.5. The mean rating was 6.5 (Table 13). Left-of-centre respondents were slightly more critical of the forest industry's environmental performance. One centre-right respondent did not provide a rating.

Table 13: Current environmental performance of the forest industry as a whole

Environmental Performance Rating	Left-of-centre (n=19)	Centre-Right (n=15)	Total (n=34)
Range	4.0 - 8.5	6.0 - 8.0	4.0 - 8.5
Mode	6.0	7.0	6.0
Median	6.0	7.0	6.0
Mean	6.3	6.8	6.5

The respondents who gave an environmental performance rating of less than 6.5 stated that the industry had "*considerable potential*". Plantation forests are renewable and they improve carbon storage. Furthermore, the forest industry is "*vastly improved*" compared to what it used to be in terms of recognising, and responding to, environmental issues. However, there "*is still room for improvement*", particularly with regard to: diversifying the species grown in New Zealand's forests, certain logging practices, a need for more on-shore processing, and a need for better public relations.

Respondents who gave a rating of 6.5 or greater stated that New Zealand's forests are "*environmentally attractive*" in their growing state. The forests were regarded as a long-term crop which provided a sustainable form of land management and a carbon sink. The forest industry was perceived as providing jobs and growth and also being environmentally attractive in terms of energy efficiency, using its own energy resources, and recycling.

However, while the general environmental stance of the forest companies was good, there were "*still some problems in logging and processing*". Media coverage of environmental pressure groups such as Greenpeace "*highlighted the bad side of the industry*". There needed to be:

- more awareness of the need to restore the environment when a crop is harvested;
- diversification of the species grown in New Zealand's planted production forests;
- increased planting of native trees;
- a reduction in the impact on New Zealand's public roads;
- reduced carbon dioxide emissions;
- less pollution;
- increased energy efficiency; and
- improved public relations.

Attitudes and opinions about specific environmental issues

In order to further elaborate upon politicians' perceptions of the forest industry's current environmental performance, respondents were asked to state their level of concern and/or opinion about a number of specific issues.

(a) Monoculture

One issue that had been highlighted as a fairly major concern at a national level, particularly by left-of-centre respondents (Table 9), was the need to diversify the number of species grown in New Zealand. To elaborate upon this, a question in the survey prompted the respondents to state just how concerned they were about having a high percentage of New Zealand's forests in one species. A three-point attitude scale was used: very concerned, concerned, unconcerned.

Table 14: Level of concern about monoculture

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	36.8	47.4	10.5	5.3	1.72
Centre-Right (n=16)	0.0	31.2	68.8	0.0	2.69
Total (n=27)	20.0	40.0	37.1	2.9	2.18

Left-of-centre politicians were significantly more concerned about the issue of monoculture than centre-right respondents. On a scale of 1.00 (all respondents being very concerned) to 3.00 (all respondents unconcerned), left-of-centre respondents had a mean score of 1.72; 84.2% of these politicians were either concerned or very concerned (Table 14). In contrast, the centre-right respondents had a mean level of concern of 2.69; 68.8% were unconcerned about this issue. Chi-square analysis revealed that there was an extremely significant difference (p-value=0.0008) between the responses of the two groups.

(b) Current logging practices

The politicians were asked whether or not they approved of current logging practices in New Zealand. Responses were coded as: approve, disapprove, neutral, or not stated.

The majority (87.5%) of centre-right respondents stated that they approved of current logging practices (Table 15). Approximately half of the left-of-centre respondents shared this opinion, but 36.8% were neutral. Chi-square analysis consequently revealed a significant difference (p-value=0.0467) between the two groups.

Those respondents who stated that they approved of current logging practices said that they had no great complaint so long as environmental codes were adhered to and practices were not harmful to the environment. One respondent stated that there needed to be better landscape management, particularly near cities, highways, and tourist routes. Another expressed concern about the safety of heli-logging, though they perceived this as being the cleanest logging method available.

Table 15: Opinion on current logging practices in New Zealand

Response	Approve (%)	Neutral (%)	Don't Approve (%)	Not Stated (%)
Left-of-centre (n=19)	52.6	36.8	10.6	0.0
Centre-Right (n=16)	87.5	6.3	0.0	6.2
Total (n=35)	68.6	22.8	5.7	2.9

Table 16: Opinion on clearfelling pines

Response	Approve (%)	Neutral (%)	Disapprove (%)	Not Stated (%)
Left-of-centre (n=19)	63.2	31.5	5.3	0.0
Centre-Right (n=16)	93.8	0.0	6.2	0.0
Total (n=35)	77.1	17.2	5.7	0.0

Respondents who were neutral on this issue stated that they approved of the better practices but disapproved of others. Clearfelling was an acceptable practice except (a) in steeper areas and (b) over vast areas, due to potential soil and water problems. Smaller logging coupes were needed in some areas, and "*logging using horses may even be appropriate in places*".

The two respondents who did not approve of current logging practices felt that "*some logging operations were very good but many were not*". They were of the opinion that the New Zealand logging industry "*still had a lot to learn*".

The politicians were also asked whether or not they approved of clearfelling pine trees. This was a separate question, as "clearfelling" tends to be a far more emotive term than "current logging practices".

Almost all (93.8%) centre-right respondents approved of clearfelling pines (Table 16). Most of the left-of-centre respondents also approved, but approximately one-third (31.5%) were neutral. Chi-square analysis showed a significant difference (p-value=0.0469) between the two groups.

Reasons for approving of, or being neutral about, clearfelling were the same as for the question about "current logging practices". Those who disapproved stated that clearfelling was "*silly and ugly*", and they were concerned about waste, and erosion of topsoil.

Respondents were then asked to state how concerned they were about current logging practices: very concerned, concerned, or unconcerned. Again, there was a highly significant difference (p-value=0.0006) between the response sets. The majority (78.9%) of left-of-centre respondents expressed concern about this issue, whereas the majority (75.0%) of centre-right respondents stated that they were unconcerned (Table 17).

Table 17: Level of concern about current logging practices

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	0.0	78.9	21.1	0.0	2.21
Centre-Right (n=16)	0.0	18.8	75.0	6.2	2.80
Total (n=27)	0.0	51.4	45.7	2.9	2.47

Table 18: Level of concern about the effects of logging on water and soil

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	15.8	52.6	31.6	0.0	2.16
Centre-Right (n=16)	0.0	56.2	43.8	0.0	2.44
Total (n=27)	8.6	54.3	37.1	0.0	2.29

(c) Effect of forestry on water and soil

The third environmental issue examined in the survey was the effect of forestry on water and soil. Two questions were asked: how concerned were respondents about the effect of logging on water and soil, and did they think that forestry ruined the soil for future use.

When asked how concerned they were about the effect of logging on water and soil, most (54.3%) stated that they were concerned (Table 18). There was a slight tendency for left-of-centre respondents to be very concerned while centre-right politicians expressed unconcern. However, these differences were not statistically significant.

Asked for their opinion as to whether or not forestry ruins the soil for future use, most respondents (68.6%) said "no" (Table 19). There was, however, a significant difference (p-value=0.0045) between the responses of left-of-centre and centre-right politicians. Those centre-right respondents who felt that forestry may cause some degradation to the soil gave a guarded affirmative response, whereas left-of-centre respondents who thought this would not commit themselves to any response without further research.

The respondents who stated that forestry doesn't ruin the soil for future use were of the opinion that forests do quite the opposite - they have a net "*positive effect*". The "*roots hold the soil together (especially beneficial in areas of erosion)*" and "*draw up deep minerals*"; "*humus builds up on the forest floor*". Yet even these respondents expressed some caution, stating that it was still "*early days*" and there is "*a lot to learn*". The soil has to be properly managed, and this may mean "*renewing nutrients*" and/or "*rotating land-use, maybe after two or three forestry cycles*".

Table 19: Opinion about the long-term effect of forestry on the soil

Response	Ruins future use of soil (%)	Possibly ruins soil (%)	Doesn't ruin the soil (%)	Not Stated (%)
Left-of-centre (n=19)	0.0	0.0	63.2	36.8
Centre-Right (n=16)	0.0	25.0	75.0	0.0
Total (n=35)	0.0	11.4	68.6	20.0

Table 20: Opinion on whether the appearance of logging is a problem

Response	Problem (%)	Possibly (%)	Not a problem (%)	Not Stated (%)
Left-of-centre (n=19)	21.0	5.3	73.7	0.0
Centre-Right (n=16)	18.8	12.5	68.7	0.0
Total (n=35)	20.0	8.6	71.4	0.0

Centre-right politicians who stated that forestry may ruin the soil for future use said that their opinion depended on where the forests were planted and how long they had been there. There was a general feeling that if pine trees were in an area for "*longer than three rotations*" then the use of the land for anything other than forestry could be jeopardised.

The left-of-centre respondents who did not give a definite opinion stated that there was simply not enough data yet. There was a feeling that monocultural plantations could ruin the soil, particularly on steeper areas, and that three rotations may be the maximum length of time ("*depending on initial soil type and logging technique*") that an area could be in forest before the soil's potential is compromised.

(d) Effect of logging on the landscape

The next two questions considered politicians' opinions and attitudes about the appearance of logging scenes. First they were asked whether or not they felt that the visual appearance of logging was a problem. Then they were asked how concerned they were about the issue of visual appearance.

The majority (71.4%) of respondents did not consider the visual impacts of logging to be a problem (Table 20). However, 20.0% stated the opposite, while the remaining 8.6% were of the opinion that visual impacts were a problem in certain areas. There was no significant difference in responses from the two political groups.

Those politicians who stated that visual impacts of logging are not problematic were firmly of the opinion that inter-rotation landscape change is temporary and necessary. The only problem may be when the logging operation is in close proximity to a major tourist route.

The respondents who took exception to the appearance of logging described this issue as a "*slight*" to "*big*" problem. They realised that negative visual impacts are part of the rotation process and are only a "*temporary or short-term eyesore*". However, they disliked the "*destructive, scarred, and wasteful appearance of clearfelled areas seen in close proximity*". These respondents would prefer to see (a) logging done in small and staggered stages and (b) roadside buffers, particularly near cities, highways and tourist routes. One respondent stated that more public relations work is needed in this area. The forest industry tends to "*sell itself short*"; it needs to educate the public about planted production forests being a crop.

Table 21: Level of concern about the visual appearance of logging

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	0.0	26.3	73.7	0.0	2.74
Centre-Right (n=16)	0.0	43.8	56.2	0.0	2.56
Total (n=27)	0.0	34.3	65.7	0.0	2.66

When asked how concerned they were about the issue of visual impacts, the majority (65.7%) stated that they unconcerned (Table 21). None of the respondents were very concerned. There was a tendency for centre-right respondents to be more concerned about this issue, though this difference was not statistically significant.

(e) Conservation of native wildlife

The survey included a couple of questions regarding wildlife conservation. Respondents were asked how concerned they were about the conservation of native wildlife, and whether they felt that the New Zealand forest industry was taking wildlife conservation issues seriously enough.

The majority (65.7%) of the survey respondents stated that they were concerned about native wildlife conservation (Table 22). There was, however, a significant difference (p-value=0.0066) between the response sets of the two political groups. The left-of-centre respondents had a tendency to be concerned to very concerned (their mean level of concern being 1.83), whereas centre-right respondents were unconcerned to concerned (with a mean of 2.38).

Regarding the question as to whether or not the forest industry was taking wildlife conservation issues seriously enough, the response sets of the two political groups were again significantly different (p-value=0.0315). Overall, there was a fairly even division between affirmative and negative responses, with left-of-centre respondents tending to the negative opinion and centre-right respondents to the affirmative (Table 23).

Respondents who replied in the affirmative said that they were "*unsure as to whetheror not planted forests were a habitat for any species other than pests*". They would certainly

Table 22: Level of concern about conservation of native wildlife

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	15.8	78.9	0.0	5.3	1.83
Centre-Right (n=16)	6.2	50.0	43.8	0.0	2.38
Total (n=27)	11.4	65.7	20.0	2.9	2.09

Table 23: Opinion on whether wildlife issues were being taken seriously enough

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	31.6	0.0	57.9	10.5
Centre-Right (n=16)	43.8	12.5	18.7	25.0
Total (n=35)	37.2	5.7	40.0	17.1

be concerned if any natural habitat was being lost prior to planting or if any kiwi were at risk. Still, there would "*always be room for improvement*", and more public relations work regarding wildlife conservation issues and/or initiatives would be beneficial for the industry.

The respondents who gave a negative or neutral response stated that "*some companies are taking the issues seriously but others are not*". They were also of the opinion that there is "*room for improvement*" and "*more could definitely be done*", particularly with regard to public education. Indeed, they felt that "*all industries should be taking this issue more seriously*".

(f) Use of chemicals by the forest industry

The use of chemicals by the forest industry was raised, unprompted, as an issue of national importance by about one-third of the left-of-centre respondents (Table 9). To elaborate upon this finding, the survey prompted all of the respondents to state how concerned they were about this issue.

Most (85.7%) of the respondents stated that they were either concerned or very concerned about the use of chemicals by the forest industry (Table 24).

Left-of-centre respondents were significantly more concerned (p-value=0.0186): 52.6% of left-of-centre respondents were very concerned about the use of chemicals, as opposed to only 12.5% of the centre-right politicians.

(g) Disposal of waste from processing operations

Several respondents cited waste disposal problems as "*evidence of poor environmental performance*" by the processing industries. To examine the depth of concern about this issue, respondents were asked to state how concerned they were about the disposal of waste from processing operations such as pulp and paper mills.

Table 24: Level of concern about the use of chemicals in the forest industry

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	52.6	31.6	15.8	0.0	1.63
Centre-Right (n=16)	12.5	75.0	6.3	6.2	1.93
Total (n=27)	34.3	51.4	11.4	2.9	1.76

Table 25: Level of concern about disposal of waste from processing

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	52.6	47.4	0.0	0.0	1.47
Centre-Right (n=16)	18.8	68.7	12.5	0.0	1.94
Total (n=27)	37.1	57.2	5.7	0.0	1.69

Most (88.3%) of the survey respondents stated that they were concerned to very concerned about this issue (Table 25). There was again a significant (p-value=0.0563) difference between the response sets of the two political groups. Approximately half (52.6%) of the left-of-centre politicians were very concerned about the disposal of waste, as opposed to only 18.8% of the centre-right politicians. Indeed, 12.5% of the latter stated that they were unconcerned (Table 25).

(h) Pollution from the forest industry

A fairly similar result was obtained when the respondents were asked how concerned they were about pollution from the forest industry. Most (62.9%) stated that they were concerned (Table 26). Left-of-centre respondents tended to be concerned to very concerned, with the mean level of concern being 1.53. In contrast, centre-right politicians had a mean score of 2.00. A significant difference (p-value=0.0402) existed between the two groups.

(i) Effect of forestry on the environment as a whole

Respondents were then asked how concerned they were about the effect of forestry on the overall environment.

The majority (60.0%) of respondents were in the concerned category, though there was a slight, though not significant, tendency for centre-right politicians to be more unconcerned than left-of-centre respondents (Table 27).

(j) Environmental performance standards

To complete consideration of environmental issues, the survey respondents were asked (a) whether or not the required environmental performance standards are being met by the forest industry, and (b) whether or not these standards are strong enough.

Table 26: Level of concern about pollution from the forest industry

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	47.4	52.6	0.0	0.0	1.53
Centre-Right (n=16)	12.5	75.0	12.5	0.0	2.00
Total (n=27)	31.4	62.9	5.7	0.0	1.74

Table 27: Level of concern about the effect of forestry on the environment

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	5.3	68.4	26.3	0.0	2.21
Centre-Right (n=16)	0.0	50.0	50.0	0.0	2.50
Total (n=27)	2.9	60.0	37.1	0.0	2.34

The majority (57.1%) of respondents were of the opinion that the forest industry has been meeting the required environmental performance standards (Table 28). However, there was a significant (p-value=0.0451) difference in the opinions of the two political groups. The centre-right respondents were strongly (81.2%) of the affirmative, while left-of-centre politicians were fairly divided between the affirmative and negative viewpoint.

The politicians who replied in the negative, or were neutral on this issue, stated that the required standards have "*generally been met*", but the industry "*could do better*". The New Zealand forest industry needs to concentrate on improving its performance, particularly with regard to the processing industries.

Those respondents who replied in the affirmative stated that the forest industry has "*definitely been making a lot of effort to meet the required standards*" and "*most companies have been obeying the rules*"; "*it has been in the industry's best interests to do so*".

However, there "*is still room for improvement*". The forest industry "*still has some bad eggs*", and the public "*needs reassurance that improvements will be made*" in the processing industries. Three of the respondents who felt that the required standards were being met were also of the opinion that these standards needed to be raised just "*to keep the industry on its toes*".

All of the respondents were then asked whether they felt that current environmental performance standards were strong enough. Here opinions were fairly evenly divided between the affirmative and the negative (Table 29). Most (68.5%) of the left-of-centre respondents stated that current standards were definitely not strong enough. Most (68.8%) of the centre-right politicians stated that they were satisfactory. The two data sets were significantly different (p-value=0.0008).

Table 28: Opinion on whether performance standards are being met

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	36.8	15.8	42.1	5.3
Centre-Right (n=16)	81.2	6.3	6.3	6.2
Total (n=35)	57.1	11.5	25.7	5.7

Table 29: Opinion on whether current standards are strong enough

Response	Strong enough (%)	Neutral (%)	Not strong enough (%)	Not Stated (%)
Left-of-centre (n=19)	21.0	0.0	68.5	10.5
Centre-Right (n=16)	68.8	18.8	6.2	6.2
Total (n=35)	42.8	8.6	40.0	8.6

The presence of contaminated sites, and a feeling that some areas were being clearfelled when they should not be, were cited as evidence to support the contention that standards were not strong enough. The RMA was seen as a good piece of legislation, "*though still undergoing a process of development*". Forestry companies "*still needed to improve their environmental performance*". At the same time "*the Government also needs to do more*", especially with regard to "*introducing more stringent controls on pollution*" and "*the use of chemicals*".

Those politicians who thought that New Zealand's environmental performance standards are generally strong enough believed that the RMA was "*much more robust than any previous legislation*", though the forest industry and local government were "*still coming to terms with it*". It was also their opinion that performance standards will "*definitely get tougher in the future*" - "*particularly around cities, where clearfelling may not be allowed in the future*". They believed there would "*always be room for improvement*", and the forest industry will "*generally be co-operative in meeting tougher standards*" as "*companies were investing for the long-term*".

ECONOMIC ISSUES

Economic performance ratings

Respondents were asked to rate the current economic performance of the New Zealand forest industry on a scale of 0 to 10, where 0 indicated very poor performance and 10 very good performance. Responses ranged from 4.0 to 8.5, with the mean rating being 7.0 (Table 30). There was virtually no difference between the attitudes of left-of-centre and centre-right politicians.

Respondents giving the forest industry a rating below 7.0 generally felt that the sector's contribution to the economy is "*acceptable*" but "*could be improved*". The industry was seen to be good at "*only a narrow range of skills - growing trees and producing logs*". A particular issue of concern was that too many raw logs were being exported.

Table 30: Current economic performance of the forest industry

Economic Performance Rating	Left-of-centre (n=19)	Centre-Right (n=16)	Total (n=35)
Range	4.0 - 8.5	5.0 - 8.0	4.0 - 8.5
Mode	7.0	7.0	7.0
Median	7.0	7.0	7.0
Mean	6.9	7.2	7.0

There needed to be more on-shore processing, but "*unfortunately the industrial and political will to achieve this desire was lacking*". Though the industry had an "*increased capacity for processing raw materials competitively*", it was believed that "*New Zealand was not yet well enough established in the world market*" to capitalise on this.

Politicians giving a rating of 7.0 or greater believed that the forest industry is performing very well. The Minister of Forestry was perceived to have been "*proactive in promoting the industry over recent years*", and NZFOA information indicated that the forest industry was a "*success story*" and "*a glamour investment*". The industry provided jobs and potential economic growth, as well as raising New Zealand's profile in overseas markets. New Zealand was seen to have a real comparative advantage in being able to "*grow high quality wood faster than elsewhere in the world*", there seemed to be improving competitiveness, good company and market diversification, and commitment to growth and development by both companies and Government.

The excellent economic performance of the forest industry was "*tarnished*", however, by: a rising dollar; a high level of foreign ownership; a lack of variety in timbers produced; and expansion onto land better suited to other uses. Respondents stated that there was also a definite need for more investment in value-added processing. The industry was seen to "*perform well up to harvesting, as well as in log exporting and marketing, yet the industry had not come very far with further processing*". Several politicians also stated that there was also still a need to "*rationalise the sawmilling sector*" and "*improve public relations*". The industry was still seen as "*underselling itself*"; for example, "*very few people know about FIC's Vision 2020 strategy*".

Attitudes and opinions about specific economic issues

In order to further elaborate upon politicians' perceptions of the forest industry's economic performance, respondents were asked to state their level of concern, and/or opinion, about a number of specific issues.

(a) Foreign investment

Almost all (97.1%) of the politicians surveyed were of the opinion that foreign investment is not harmful to the New Zealand economy (Table 31) and there were no significant differences between responses from the left-of-centre and centre-right politicians.

Foreign investment was perceived as very beneficial, even essential, for the

Table 31: Opinion about foreign investment

Response	Harmful to the economy (%)	Possibly harmful (%)	Not harmful to the economy (%)	Not Stated (%)
Left-of-centre (n=19)	5.3	0.0	94.7	0.0
Centre-Right (n=16)	0.0	0.0	100.0	0.0
Total (n=35)	2.9	0.0	97.1	0.0

Table 32: Level of concern about foreign ownership of planted forests

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	42.1	10.5	47.4	0.0	2.05
Centre-Right (n=16)	0.0	12.5	87.5	0.0	2.88
Total (n=27)	22.9	11.4	65.7	0.0	2.43

economy. New Zealand was seen as "*having always been reliant on foreign investment for economic development*". Continuing development of the forest industry would be virtually impossible without foreign investment, "*as New Zealand does not have sufficient domestic savings of its own to fund capital development on the scale required*".

The benefits of foreign investment acknowledged by the survey respondents were that it:

- brings "*sorely needed capital*" into the country to benefit New Zealanders;
- creates jobs, "*particularly for Maori and Pacific Islanders*";
- provides access to (new) markets, research and technology;
- increases the quality of forest products, particularly "*increasing the number of specific end-uses*";
- provides access to valuable foreign management and marketing skills;
- provides "*a more productive and competitive economy*"; and

allows New Zealand to "*expand and maximise the industry*".

One respondent stated that they believed foreign investment was harmful to the economy, as (a) "*foreign investors are probably not very interested in the lives of New Zealanders*" and (b) "*profits did not 'trickle down' to the general public*".

(b) Foreign ownership

Many politicians, particularly from the left-of-centre, recognised a need to distinguish between the benefits of foreign investment and the debate over ownership of, and sovereignty over, New Zealand's forest resources.

When asked how concerned they were about the issue of foreign ownership of New Zealand's planted forests, most respondents (65.7%) stated that they were unconcerned (Table 32).

However, there was a significant difference (p-value=0.0117) between the response sets from the left-of-centre and centre-right. The majority (87.5%) of centre-right politicians stated that they were unconcerned. There was a fairly even division of opinion amongst left-of-centre respondents.

A very similar set of responses was obtained when politicians were asked if they thought that there was too much foreign ownership of New Zealand's forests (Table 33). Again, most (65.7%) did not perceive a problem. However, there was a significant difference (p-value=0.0621) between the response sets of the two political

Table 33: Opinion on whether there was too much foreign ownership

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	42.1	5.3	47.3	5.3
Centre-Right (n=16)	6.3	0.0	87.5	6.2
Total (n=35)	25.7	2.9	65.7	5.7

groups. The majority (87.5%) of centre-right respondents replied in the negative. Left-of-centre politicians were fairly evenly divided.

Those who replied in the affirmative felt that there was already too much foreign ownership of all resources. They believed foreign ownership to be harmful to society, in that the "*New Zealand people lose sovereignty over their resources*" and "*profits go overseas*". There was a "*need to ensure strict controls about the sale of resources, particularly land*", with the "*development of joint ventures between overseas and domestic investors*" being preferable. Similarly, there was seen to be a need to develop "*clear guidelines about what New Zealanders want as a country with regard to both foreign ownership and investment*".

The respondents who replied in the negative stated that they had no problem with foreign ownership of forest cutting rights, though several did have a grievance about ownership of land. They said that it was obviously "*preferable to see an expanded domestic ownership of resources*". However, the "*reality*" in their opinion was that foreign ownership facilitated greater capital investment and industry development, more jobs, increased productivity and processing, greater application of new research and technologies, access to (new) markets, and better marketing.

To further explore opinions on this issue, respondents were asked whether they felt that foreign ownership of New Zealand's planted forests implied that the forest industry had less commitment to social, economic and environmental values. Most (62.8%) did not believe that this would be the case (Table 34). However, there were once again significant differences (p-value=0.0045) between the responses of left-of-centre and centre-right politicians. Almost all (93.7%) of the latter did not think there would be any problems due to foreign ownership. The majority (57.9%) of left-of-centre respondents believed there could be diminished industry commitment.

Table 34: Opinion about the effect of foreign ownership on industry commitment to New Zealand's economic, social and environmental values

Response	Less commitment (%)	Possibly less commitment (%)	No less commitment (%)	Not Stated (%)
Left-of-centre (n=19)	47.4	10.5	36.8	5.3
Centre-Right (n=16)	0.0	6.3	93.7	0.0
Total (n=35)	25.7	8.6	62.8	2.9

A number of respondents in the negative category were of the opinion that foreign owners "*may have more commitment to social, economic and environmental values than some New Zealand companies*". Foreign owners "*are determined to 'play the game'; they are very conscious of green values and corporate image*". New Zealand forest owners were seen as being "*slow to add-value*". Their investment was "*not aimed at the high end of the market, so they ship potential profits overseas in the form of raw logs*".

Several respondents were more guarded in their opinion about the effect of foreign ownership on industry responsibilities. They stated that foreign ownership did not necessarily imply less commitment to social, economic and environmental values, so long as companies (a) abided by New Zealand laws and (b) were carefully monitored.

Responses in the affirmative category ranged from "*possibly*" to "*beyond a doubt*", though they also stated that "*many New Zealand forest owners could also do better*".

(c) Company size

The survey respondents were informed that five large companies accounted for around 80% of activity in the forest industry, particularly in log and sawn timber production, at the time of the survey. They were then asked whether they were concerned about the New Zealand forest industry being dominated by large companies.

Once again, most respondents (65.7%) stated that they did not perceive this situation to be problematic, yet there were significant differences (p-value=0.0042) between the opinions of centre-right and left-of-centre politicians (Table 35). Almost all (93.8%) of the former did not see the situation as being of concern. Left-of-centre respondents were evenly divided on the issue.

Concerned respondents saw a number of problems. Decision-making by large companies was seen as being "*too far removed from communities affected*", "*profits go overseas*", and "*blanket management approaches for large areas*" may be made. In other words, large companies may have less commitment to social, economic and environmental values. There was a general feeling amongst these respondents that there should be more "*local or regional control of resources*". They favoured the "*Swedish or New Zealand farm forestry models*", with small company involvement and small forest owners, diversifying the species grown and adding value to smaller areas.

Table 35: Opinion about large companies dominating the forest industry

Response	Problem (%)	Possibly a problem (%)	Not a problem (%)	Not Stated (%)
Left-of-centre (n=19)	42.1	15.8	42.1	0.0
Centre-Right (n=16)	0.0	6.2	93.8	0.0
Total (n=35)	22.9	11.4	65.7	0.0

Table 36: Level of concern about large companies

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	5.3	47.4	47.5	0.0	2.42
Centre-Right (n=16)	0.0	6.2	93.8	0.0	2.94
Total (n=27)	2.9	28.5	68.6	0.0	2.66

The politicians who stated that this issue may "*possibly*" be a problem were of the opinion that the existence of large companies was "*the reality of the modern world economy*", though they (a) "*did not like monopolies*" nor (b) "*seeing local communities being trampled*". There was a feeling that "*competition should be kept fair*" and "*larger companies should not stifle smaller operations*". These respondents also felt that "*large companies tended to 'shut up shop' too quickly simply for commercial reasons*", without giving "*due consideration to [socio-economic] effects on dependent communities*".

Respondents who did not perceive large companies to be a problem felt that "*large multi-national corporations were just a fact of the modern economy*". Larger companies were "*better able to manage investment, risk, and environmental issues*", as well as "*compete in the global economy*". These respondents perceived that there was "*still fair competition*" and noted that "*all of the companies were regulated by the same laws*". They said that they would be concerned if any of the larger companies amalgamated, especially if this forced up domestic prices. However, they saw the opposite process occurring; they recognised a trend towards smaller companies at the time of the survey.

Asked exactly how concerned they were about the issue of large companies dominating the forest industry, most politicians (68.6%) stated that they were unconcerned (Table 36). Significantly (p-value=0.0129), almost all of the centre-right respondents stated that they were unconcerned, whereas left-of-centre politicians were divided between being unconcerned and concerned.

(d) Log exporting

Concern about the amount of raw logs exported, rather than processed on-shore, has already been raised in response to a number of the previous questions. To quantify the depth of concern about this issue, all of the survey respondents were asked to state how concerned they were about the volume of logs exported for processing overseas.

The majority (80.0%) of the politicians surveyed stated that they were either concerned or very concerned about this issue (Table 37). There was a tendency for left-of-centre respondents to be very concerned, while centre-right respondents were merely concerned. However, this tendency was not statistically significant.

Table 37: Level of concern about the volume of raw logs exported

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	52.6	31.6	15.8	0.0	1.63
Centre-Right (n=16)	18.8	56.2	25.0	0.0	2.06
Total (n=27)	37.1	42.9	20.0	0.0	1.83

The politicians surveyed were almost unanimous in their view that "*further value-adding within New Zealand is preferable*" - "*the more the better*". They preferred to see "*the finished product leaving our shores*", "*adding the highest value where possible to get the maximum return for New Zealand*".

One respondent advocated a penalty on the exporting of raw logs, while two others stated that they encouraged both the Government and the private sector to promote value-adding. In contrast, ten respondents stated that "*the reality of the matter*" was that the exporting of raw logs was "*totally dependent on what the international market demanded and what New Zealand could supply*". Three of these respondents stated that they were against any Government intervention to encourage further processing, believing that "*forest owners should be entirely free to sell to whom and where they chose*". Another saw a compromise situation, encouraging New Zealand companies to become actively involved in joint-venture processing operations in the country of destination.

SOCIAL ISSUES

Social performance

Forestry has many social benefits. At the same time, however, there can be negative effects such as:

- rural depopulation resulting from forest expansion;
- job losses through mill closures; and
- antagonism over loss of access to recreational amenities due to logging operations or the sale of land.

As these issues are intricately intertwined with economic considerations (hence the term socio-economic impacts) it was not considered feasible to ask the survey respondents to rate the current social performance of the forest industry on a scale of 0 to 10. Instead, they were asked to simply state whether they felt that social benefits of forestry outweighed the negative impacts on society.

The majority (80.0%) agreed that benefits outweighed any negative social effects (Table 38).

Table 38: Opinion on whether social benefits outweigh costs

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	89.5	0.0	5.3	5.2
Centre-Right (n=16)	68.8	6.2	12.5	12.5
Total (n=35)	80.0	2.9	8.6	8.5

There were no significant differences in the response sets of left-of-centre and centre-right respondents.

For most respondents, the social benefits of forestry were seen as large and widespread, whereas negative impacts, if any, were perceived to be small, local and manageable. Forestry was seen as a potentially sustainable industry based on a renewable, potentially infinite, resource. It provided ongoing potential benefits of:

- overseas funds for capital investment;
- economic growth and development;
- export dollars;
- the creation of an increasing tax base;
- work for businesses;
- employment, particularly for Maori and Pacific Islanders;
- wood for the domestic market;
- increased community strength, particularly for small isolated rural communities;
- community involvement;
- increased overseas profile;
- aesthetics; and
- protection of the remaining indigenous forests.

Increasing road use and road damage, plus potential environmental damage, were seen as problems, though not insurmountable ones. The respondents believed that, so long as the forest industry was developed in a sensible manner, New Zealand could reap the social benefits of its forestry advantage.

Those who disagreed with the above sentiments were of the opinion that forestry offered no more social benefits than the land-uses it was replacing.

Attitudes and opinions about specific social issues

In order to further elaborate upon politicians' perceptions of the forest industry's current social performance, respondents were asked to state their level of concern, and/or opinion about, a number of specific issues.

(a) Contribution to communities

When asked whether or not forest companies make a significant contribution to the local communities in which they operate, most (68.6%) of the respondents replied in the affirmative (Table 39).

There was, however, a significant (p-value=0.0467) difference between the two political groups. Centre-right politicians tended to state that forest companies definitely provided a significant contribution, while almost half of the left-of-centre respondents tended to state that the contribution, if any, was limited to some extent.

Table 39: Opinion about forest company contribution to local communities

Response	Significant contribution (%)	Neutral (%)	Not significant (%)	Not Stated (%)
Left-of-centre (n=19)	52.6	36.9	10.5	0.0
Centre-Right (n=16)	87.5	6.3	0.0	6.2
Total (n=35)	68.6	22.8	5.7	2.9

Respondents who stated that forest companies definitely make a significant contribution to local communities did so on the basis that these companies provide jobs, wages and wealth. Four politicians in this category qualified their remarks, however, stating that this was only generally the case; "*some companies were better than others*". Another stated that they believed that companies made a significant contribution in terms of jobs and wealth creation, but they were "*unsure how civic-minded*" the companies were, for example with regard to contribution to sports and community services. More public relations work was seen to be needed in this area.

The respondents who gave a neutral response stated that they believed "*some companies made a significant contribution, others did not*". Indeed, there appeared to be a considerable amount of "*tokenism*"; companies were "*selective about where they put their money*". It was the feeling of several respondents that companies would have better public relations if they "*spread the money around a bit more, investing in community services rather than providing scholarships to individuals*". There needed to be "*more consideration of the local communities in which the companies operate*".

Negative opinions about this issue were held by politicians who believed that "*all large companies tend to be transient and put profits before people*". Small communities were seen to have been "*totally devastated by companies acting in a callous and self-interested manner*". These politicians felt that there needed to be "*considerable improvement*" in terms of "*company loyalty to local communities and workers*".

(b) Health and safety

Asked how concerned they were about the issue of health and safety in the New Zealand forest industry, 70.4% of the survey respondents stated that they were either concerned or very concerned (Table 40). There were no significant differences in the opinions of left-of-centre and centre-right politicians.

The respondents were also asked whether they felt that the health and safety performance of the forest industry was worse than other industries. Most (71.4%) replied that this was not the case (Table 41). Again, there were no significant differences in the response sets of the two political groups.

Table 40: Level of concern about health and safety in the forest industry

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	10.5	68.4	21.1	0.0	2.11
Centre-Right (n=16)	6.2	56.3	31.3	6.2	2.27
Total (n=27)	8.6	62.8	25.7	2.9	2.18

Table 41: Opinion on whether health and safety is worse than in other industries

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	21.1	0.0	78.9	0.0
Centre-Right (n=16)	18.7	6.3	62.5	12.5
Total (n=35)	20.0	2.9	71.4	5.7

The politicians who stated that forestry's health and safety record was worse than other industries said that the industry's performance was "*unsatisfactory when compared to the international standards*". One respondent "*put the blame on individuals*".

Those respondents who stated the contrary believed that the forest industry was an "*inherently risky business*", but generally its health and safety performance could be regarded as "*the same, if not better than, other industries*". Several respondents believed that the building industry, oil industry, agricultural sector and/or ports had a worse record.

The recent health and safety record in the forest industry was seen as "*vastly improved on 15-20 years ago*". However, "*continuing efforts to lower the death rate*" were needed.

(c) Use of public roads

The issue of increasing usage of public roads for the transportation of logs and timber was raised, unprompted, as an issue of national concern earlier in the survey. To further examine this issue, all of the survey respondents were asked if they considered this issue to be a problem. Most (80.0%) replied in the affirmative (Table 42). There was no significant difference between the opinions of the two political groups.

Most of the respondents did not state a reason for considering this issue to be so problematic. There were, however, a number of references to the need for "*better planning of New Zealand's infrastructure*", investing in "*upgrading roads rather than spending it all on running repairs*", and improving driver behaviour. Five respondents stated that they advocated the use of rail in preference to roads, for freight volume and safety reasons.

Table 42: Opinion on whether increasing road use is a problem

Response	Yes (%)	Neutral (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	84.2	10.5	5.3	0.0
Centre-Right (n=16)	75.0	6.2	18.8	0.0
Total (n=35)	80.0	8.6	11.4	0.0

Table 43: Level of concern about increasing road use

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	57.9	36.8	5.3	0.0	1.47
Centre-Right (n=16)	18.8	68.7	12.5	0.0	1.94
Total (n=27)	40.0	51.4	8.6	0.0	1.69

The respondents who were neutral about the increasing use of public roads stated that they saw this as "*a regional issue*". They were certainly aware of "*public prejudice against big trucks because of congestion, public safety and road damage*", and they either advocated (a) the use of rail in preference to roads or (b) increased public relations work.

Those politicians who did not perceive this issue to be problematic saw it as "*local and manageable*". It was "*just a matter of repairing a number of Class 2 and 3 roads*" after logging operations commenced in an area, together with "*soothing the general public's nerves about big trucks*" on public roads.

When all of the respondents were asked just how concerned they were about the issue of increased usage of public roads for the transportation of logs and timber, 91.4% stated that they were either concerned or very concerned (Table 43).

Though there was a tendency for left-of-centre respondents to be very concerned while centre-right politicians were merely concerned, this trend was not significant.

To further examine the reasons for this depth of concern, respondents were asked to state how concerned they were about the road damage caused by forestry trucks. Most (71.4%) stated that they were concerned (Table 44). Indeed, the mean level of concern was exactly 2.00.

Asked whether or not the forest industry caused more damage than other industries to New Zealand's roads, most (57.1%) said "*yes*" (Table 45). Note, however, that there was a statistically significant (p-value=0.0433) difference between the two political groups. Most left-of-centre respondents replied in the affirmative. Centre-right politicians were fairly divided on this issue.

Table 44: Level of concern about road damage caused by forestry trucks

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	15.8	68.4	15.8	0.0	2.00
Centre-Right (n=16)	12.5	75.0	12.5	0.0	2.00
Total (n=27)	14.3	71.4	14.3	0.0	2.00

Table 45: Opinion on whether forestry causes more road damage than other industries

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	79.0	5.3	10.5	5.3
Centre-Right (n=16)	31.2	18.8	37.5	12.5
Total (n=35)	57.1	11.4	22.9	8.6

Those politicians that said "*yes*" were of the opinion that forestry causes more damage than any other "*single industry*" to New Zealand's roads due to the size, weight and speed of trucks. However, other than continuing to use public roads and make the forest industry pay for repairs, the respondents could envisage no other practicable solution to this issue other than increasing the use of rail.

Politicians who replied in the negative felt that any industry that uses trucks will cause the same amount of damage. In other words, "*same weight equals same damage*".

(d) Truck driver conduct

Most (62.9%) of respondents were of the opinion that forestry truck drivers are considerate enough - on the whole - to other road users (Table 46).

Interestingly, this was one of the few issues in which left-of-centre politicians were more satisfied than those from the centre-right, though the differences between the two response sets were not statistically significant.

The respondents who expressed dissatisfaction were of the opinion that truck drivers in the forest industry were "*just as bad as those in other industries*". They took exception to "*speed, particularly in wet conditions*", and a "*reluctance for drivers to pull over to let other motorists past*". It was acknowledged, however, that the forest industry was trying to improve truck driver conduct.

Neutral respondents felt that the performance of the industry in this area was being let down by "*a small number of appalling drivers*", described as "*cowboys*".

Table 46: Opinion on whether forestry truck drivers are considerate enough

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	73.7	15.8	5.3	5.2
Centre-Right (n=16)	50.0	25.0	18.8	6.2
Total (n=35)	62.9	20.0	11.4	5.7

Table 47: Level of concern about forestry truck driver conduct

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	10.5	26.3	57.9	5.3	2.50
Centre-Right (n=16)	18.7	43.7	37.5	0.0	2.19
Total (n=27)	14.3	34.3	48.5	2.9	2.29

When asked exactly how concerned they were about forestry truck driver behaviour, most respondents (48.5%) stated that they were unconcerned (Table 47). Again, it was evident that centre-right respondents were more concerned about this issue, though this difference was not statistically significant.

FOREST EXPANSION ISSUES

The area of planted production forest in New Zealand was approximately 1.5 million hectares at the time of the survey. However, with an average of 80,000 hectares of new planting each year since 1993, in addition to replanting of harvested areas (NZFOA and NZFFA 1996), the planted forest estate was forecast to expand to 3.0 million hectares - if not more - by the year 2020. The survey respondents were asked if they perceived this rapid expansion to be economically, socially and environmentally beneficial to New Zealand.

(a) Potential economic gains

Most respondents (85.7%) were of the opinion that the forecast expansion in New Zealand's planted production forest estate would be beneficial to the economy (Table 48). There were no significant differences between the opinions of left-of-centre and centre-right respondents on this issue.

The general consensus was that the forecast forest expansion would be a "*boon for the New Zealand economy*", provided that it was "*properly planned and managed*". It was important that:

- international markets hold up;
- there was sound research regarding likely future demand for our produce;
  the industry did not outstrip its ability to market this produce;
- soils better suited to other land-uses were not being planted in forests;

Table 48: Opinion on whether the forecast forest expansion would be good for the New Zealand economy

Response	Beneficial (%)	Neutral (%)	Not beneficial (%)	Not Stated (%)
Left-of-centre (n=19)	89.5	5.2	5.3	0.0
Centre-Right (n=16)	81.2	18.8	0.0	0.0
Total (n=35)	85.7	11.4	2.9	0.0

Table 49: Opinion on whether the forecast forest expansion would improve the socio-economic status of the Maori

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	68.4	31.6	0.0	0.0
Centre-Right (n=16)	81.2	12.5	0.0	6.3
Total (n=35)	74.3	22.8	0.0	2.9

- adequate infrastructure was put in place to cope with the increasing forest output; and
- the industry "*has its eyes open to any potential environmental problems*".

(b) Potential social impact

When asked whether the forecast forest expansion would benefit the socio-economic status of the Maori people, most respondents (74.3%) replied in the affirmative (Table 49). They believed that more forests meant more jobs, skills and opportunities for the Maori people.

However, three respondents in the affirmative category qualified their opinion by stating that "*more jobs did not necessarily equate to increased status*". This may only result where (a) "*new forests were planted on Maori-owned lands*", providing an "*economic use of the land*" and an "*ongoing source of revenue*", and (b) where Maori were involved in "*genuine partnerships regarding development of the forests*", with ownership of the resource and capital being spread through small shareholdings and Trusts.

There was a tendency for left-of-centre respondents to qualify their answer to this question, though this inclination was not statistically significant. These respondents saw "*potential*" for forest expansion to be of benefit in raising socio-economic status, but this would depend upon Treaty of Waitangi land claims being settled "*so that Maori obtained a greater share of the resource*". There was a general feeling amongst these politicians that "*Maori did not wish to remain wage-earners for multi-national corporations*"; "*they wanted to train their people to manage their forests*".

Asked whether or not the forecast forest expansion would improve the socio-economic well-being of all New Zealanders, most respondents (77.1%) said "*yes*" (Table 50).

Table 50: Opinion on whether the forecast forest expansion would improve the socio-economic well-being of all New Zealanders

Response	Yes (%)	Yes and No (%)	No (%)	Not Stated (%)
Left-of-centre (n=19)	63.1	5.3	31.6	0.0
Centre-Right (n=16)	93.8	6.2	0.0	0.0
Total (n=35)	77.1	5.7	17.2	0.0

Table 51: Level of concern about the social effects of forest expansion

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	0.0	47.4	52.6	0.0	2.53
Centre-Right (n=16)	6.2	18.8	68.7	6.2	2.67
Total (n=27)	2.9	34.2	60.0	2.9	2.59

There was, however, a statistically significant difference (p-value=0.0469) between the responses of left-of-centre and centre-right respondents. Almost all (93.8%) of the latter believed that all New Zealanders would benefit from forest expansion. Approximately one-third (31.6%) of the left-of-centre respondents felt that only a select few would benefit. This difference was due to divergent ideological perspectives regarding the operation of the market economy.

Most of the respondents who replied that forest expansion would benefit all New Zealanders did not give reasons for this opinion. Of those that did, the reasons given were that:

- planted production forests were a renewable resource that would "*become an essential part of a sustainable economy*";
- more forests meant more jobs; and
- "*provided international markets hold up*", the increased earnings and foreign investment funds "*would flow through the economy via the multiplier-effect*".

Those respondents who did not believe that forest expansion would benefit all New Zealanders did so on the basis that they did not have any confidence in the "*so-called 'trickle-down' effect*". Forest "*owners would certainly benefit*", but "*lower income earners would experience little, if any, increase in socio-economic well-being*".

Asked how concerned they were about the social effects of forest expansion overall, most respondents (60.0%) stated that they were unconcerned (Table 51). There was a tendency for left-of-centre respondents to be more concerned about potential social effects. However, this tendency was not statistically significant.

(c) Replacement of pasture with forests

The final issue considered in the questionnaire was that of replacement of pasture with forests. The survey respondents were asked (a) whether they felt that this process was beneficial to New Zealand and (b) how concerned they were about this issue.

Most of the respondents were either neutral about this issue or did not wish to state an opinion (Table 52). There were no significant differences between the responses of left-of-centre and centre-right politicians.

The politicians who believed that the replacement of farms with forests was beneficial were of the opinion that forestry provided "*superior economic*

Table 52: Opinion on whether the replacement of farms with forests was beneficial to New Zealand

Response	Beneficial (%)	Neutral (%)	Not beneficial (%)	Not Stated (%)
Left-of-centre (n=19)	15.8	57.9	5.3	21.0
Centre-Right (n=16)	18.8	43.7	0.0	37.5
Total (n=35)	17.1	51.4	2.9	28.6

returns" and was "*better for the environment*", particularly with regard to soil conservation.

The majority of respondents qualified their remarks about this issue, stating that the replacement of farms with forests was only beneficial where: the land was "*better suited to forestry*" than pastoral agriculture; farming was facing "*serious economic difficulties in the area*"; and ports and mills were not too distant from the new forests. In other words, replacement of farms with forests could only really be approved on a site-by-site basis. Generally, the feeling was that "*forests should only be planted on less productive areas*".

Six politicians favoured a "*greater mix of forests and farms*", but one other respondent expressed "*serious misgivings about seeing a considerable area of the New Zealand countryside being planted in trees*".

Asked how concerned they were about this issue, the majority of respondents (57.1%) expressed some concern (Table 53). They did not wish to see forests "*planted on fertile soils better suited to pastoral agriculture*". There was no significant difference between the levels of concern expressed by left-of-centre and centre-right politicians.

SUMMARY OF ATTITUDES ABOUT SPECIFIC FORESTRY ISSUES

Table 54 ranks the mean level of concern expressed for each of the forest-related issues considered in the survey. The greatest concern amongst politicians involved the issues of infrastructure, waste disposal, pollution, use of chemicals, and the amount of raw logs exported for processing overseas. In contrast, few politicians were very concerned about the visual impacts of logging or the forest industry being dominated by

Table 53: Level of concern about the replacement of farms with forests

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	5.3	52.6	42.1	0.0	2.37
Centre-Right (n=16)	0.0	62.5	31.3	6.2	2.33
Total (n=27)	2.9	57.1	37.1	2.9	2.35

Table 54: Issues ranked according to mean level of concern, where 1.00 indicates that all respondents were very concerned and 3.00 means all were unconcerned

Rank	Issue	Mean (n=35)
1	Increased usage of public roads for transportation of logs and timber	1.69
2	Disposal of waste from processing operations	1.69
3	Pollution from the forest industry	1.74
4	Use of chemicals by the forest industry	1.76
5	The amount of logs exported for processing overseas	1.83
6	Road damage caused by forestry trucks	2.00
7	Conservation of native wildlife	2.09
8	Having a high percentage of our forests in one species	2.18
9	Health and safety in the forest industry	2.18
10	The behaviour of forestry truck drivers on public roads	2.29
11	The effects of logging on water and soil	2.29
12	The effect of forestry on the environment as a whole	2.34
13	Replacement of agricultural land with forests	2.35
14	Foreign ownership of New Zealand's planted forests	2.43
15	Current logging practices in New Zealand	2.47
16	The social effects of forest expansion	2.59
17	The forest industry being dominated by large companies	2.66
18	The visual appearance of logged areas	2.66

large companies, though there was some anxiety about corporations meeting their socio-economic and environmental responsibilities (Figure 1). Note, however, that for almost all of the issues, left-of-centre politicians were far more concerned than those in centre-right parties (Figures 2 and 3).

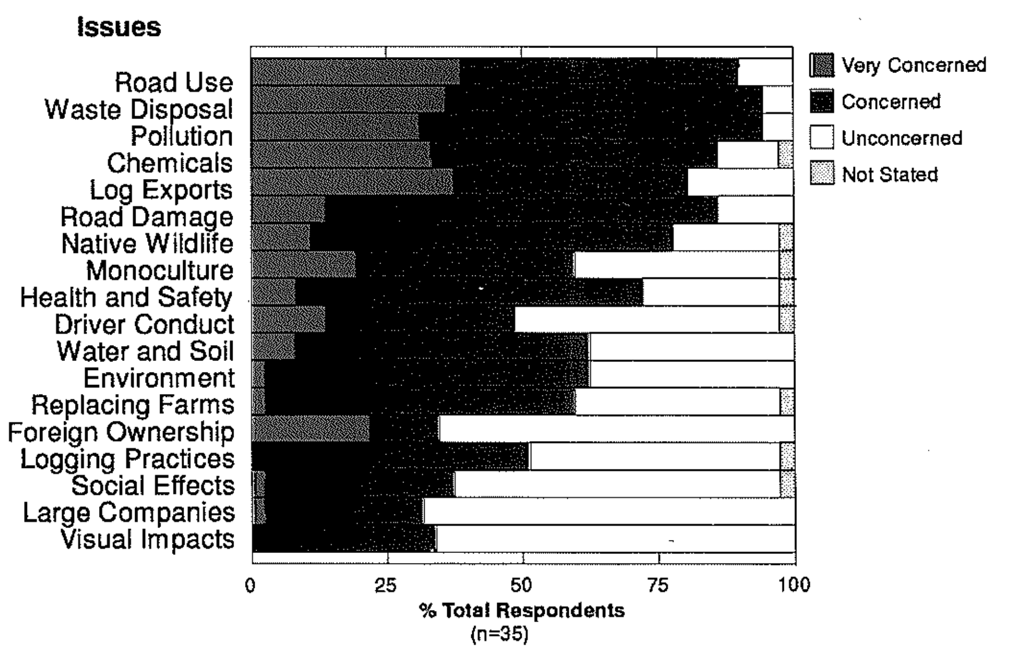

Figure 1: Survey respondents' level of concern about forestry-related issues

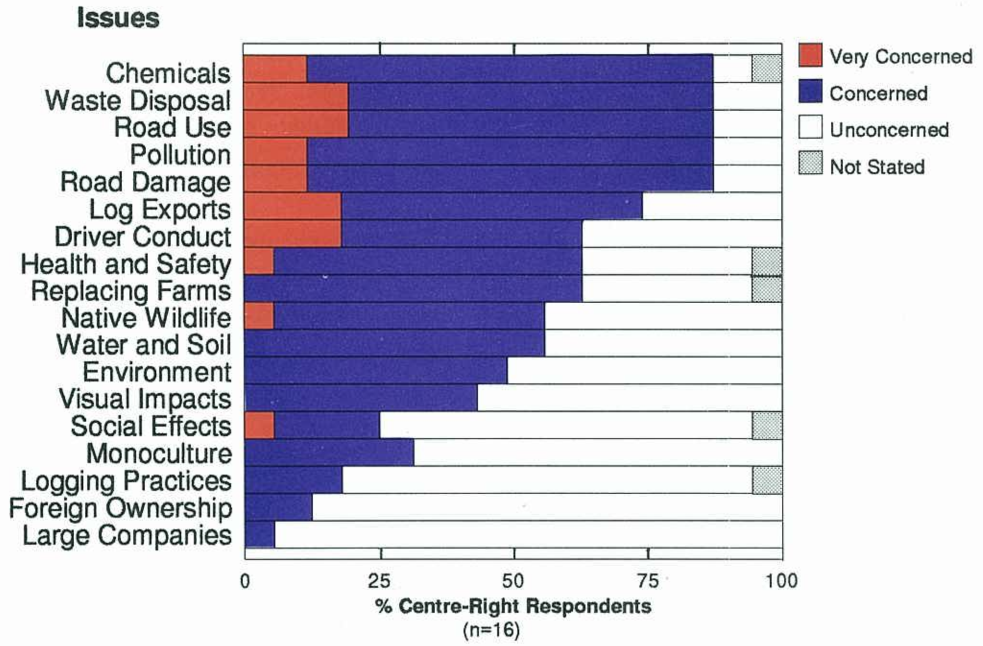

Figure 2: Level of concern amongst centre-right respondents

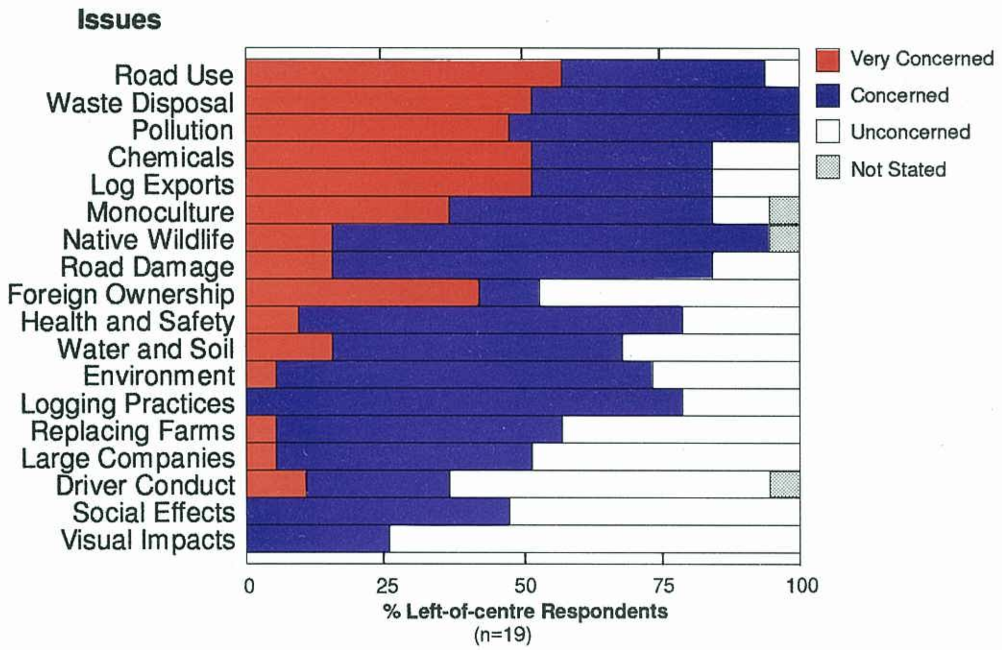

Figure 3: Level of concern amongst left-of-centre respondents

Chi-square analysis revealed that left-of-centre respondents were significantly more concerned about seven issues (Table 55). They were considerably more inclined to state that the forest industry should:

- plant a greater variety of trees;
- have *"more regard to site-values"* and *"environmentally friendly practices"* when felling trees in *"sensitive areas"*;
- give greater consideration to wildlife conservation;
- reduce the use of certain chemicals, particularly in processing operations; and
- reduce pollution.

They were also far more inclined to be concerned about *"excessive"* foreign ownership and the industry being dominated by large corporations. There was a strong belief that the operation of multi-national or foreign-owned corporations resulted in *"profits going overseas"*, together with potentially *"less consideration of, and commitment to, local communities"* and environmental values.

There were only three issues that left-of-centre politicians were less concerned about than politicians from centre-right parties. These pertained to forestry truck driver conduct, the visual impacts of logging, and the replacement of pasture with forests.

The unprompted responses about national issues of importance (Table 9) indicated that centre-right politicians had some concern about forest pests/diseases and border control. Unfortunately, the survey did not include any questions to measure politicians' concerns and opinions

Table 55: Political differences in concern about forestry-related issues

Concern by Political Orientation	Left-of-centre (Mean)	Centre-Right (Mean)	Significance (P-value)
Increased usage of public roads	1.47	1.94	ns
Disposal of waste from processing	1.47	1.94	ns
Pollution from the forest industry	1.53	2.00	*
Use of chemicals by the forest industry	1.63	1.93	*
Amount of logs exported for processing	1.63	2.06	ns
Road damage caused by forestry trucks	2.00	2.00	ns
Conservation of native wildlife	1.83	2.38	**
High percentage of forests in one species	1.72	2.69	***
Health and safety in the forest industry	2.11	2.27	ns
Behaviour of truck drivers on public roads	2.50	2.19	ns
Effects of logging on water and soil	2.16	2.44	ns
Effect of forestry on environment	2.21	2.50	ns
Replacement of pasture with forests	2.37	2.33	ns
Foreign ownership of planted forests	2.05	2.88	*
Current logging practices	2.21	2.80	***
Social effects of forest expansion	2.53	2.67	ns
Industry dominated by large companies	2.42	2.94	*
Visual appearance of logged areas	2.74	2.56	ns

where: not significant = ns; p-value<0.05 = *; p-value<0.01 = **; p-value<0.001 = ***

Table 56: Rank order of five industries according to perceived contribution to New Zealand's overall social, economic and environmental well-being over the next 25 years

Contribution by Industry	Rank				Mean Ranking
	1st (%)	2nd (%)	3rd or 4th (%)	5th (%)	(n=27)
Tourism	40.8	40.8	18.4	0.0	1.9
Manufacturing	29.6	14.8	44.5	11.1	2.7
Forestry	11.1	29.6	55.6	3.7	2.8
Agriculture	18.5	14.8	55.6	11.1	3.2
Fishing	0.0	0.0	25.9	74.1	4.6

about this issue. One respondent also felt that the survey was lacking in not having a question about work relations. Questions about these issues would be a valuable addition to any future survey of politicians' attitudes and opinions.

COMPARISON WITH OTHER INDUSTRIES

The final question in the survey asked respondents to state which of five industries they believed would contribute (a) the most, (b) the second most, and (c) the least, to New Zealand's overall economic, social and environmental well-being over the next 25 years: forestry, agriculture, manufacturing, tourism, or fishing. The respondents were by now aware that New Zealand's planted production forest estate could expand to possibly 3.5 million hectares by the year 2020.

The tourism industry was perceived to be the major contributor to New Zealand's overall social, economic and environmental well-being over the next 25 years; 81.6% of the politicians ranked it either first or second (Table 56). There was very little difference between the mean rankings of manufacturing, forestry or agriculture. Fishing, however, was definitely regarded as contributing the least. Note that eight respondents did not respond to this question.

There were major differences between the rankings of the centre-right versus left-of-centre politicians (Table 57). Centre-right respondents tended to consider that tourism would contribute the most, followed by manufacturing, forestry, agriculture and fishing. Left-of-centre respondents also gave the top ranking to tourism, but considered agriculture to be much more important

Table 57: Political differences in ranking the potential contribution of five industries to New Zealand's overall social, economic and environmental well-being over the next 25 years

Contribution by Industry	Mean Ranking		
	Left-of-centre (n=13)	Centre-Right (n=24)	Total (n=27)
Tourism	2.0	1.7	1.9
Manufacturing	3.1	2.3	2.7
Forestry	3.0	2.7	2.8
Agriculture	2.5	3.4	3.2
Fishing	4.3	4.9	4.6

than either forestry or manufacturing. Indeed, the agricultural industry was the modal response for top ranking amongst left-of-centre respondents, but it received a lower mean score due to tourism being consistently ranked either first or second in importance.

6- CONCLUSIONS

This survey examined politicians' attitudes and opinions regarding the New Zealand forest industry's current economic, social and environmental performance. A total of 35 MPs and party leaders completed a written questionnaire. The survey response rate was 33.3%.

The forest industry received high marks for its economic performance, being described as a "*success story*" and "*glamour investment*". However, virtually all of the politicians surveyed were of the opinion that they would prefer to see more domestic processing and value-adding, and fewer logs being exported for processing overseas. There existed ideological differences of opinion regarding the extent to which Government should actively encourage increased value-adding and reduced log exports.

Virtually all of the survey respondents perceived foreign investment to be beneficial to the New Zealand economy. However, almost half of the politicians from left-of-centre parties were very concerned about foreign ownership of New Zealand's resources. These respondents also felt that large corporations and foreign-owners may have less commitment to this country's economic development, community welfare, and environment.

Most of the respondents were of the opinion that the social benefits of forestry far outweighed any negative impacts. The one major concern involved the increasing demands that forestry was placing on New Zealand's infrastructure, particularly roads and ports. Indeed, the majority - especially those from left-of-centre parties - were of the firm opinion that forestry causes more damage to New Zealand's roads than any other single industry.

Environmental performance was regarded as satisfactory, though in need of improvement in some areas. Many politicians felt that the industry needed to improve waste disposal, reduce pollution, and reduce the use of certain chemicals. Respondents from left-of-centre parties were also strongly of the opinion that the industry needed to diversify the species grown in New Zealand's planted production forests and give greater consideration to wildlife conservation.

It is important to note, that whilst most centre-right politicians stated that environmental performance standards were generally (a) strong enough and (b) being met by the forest industry, respondents from left-of-centre parties took a somewhat opposing view. Many (42%) of the latter believed that existing requirements were not being met, and the majority (69%) stated that performance standards - particularly those relating to the processing industries - needed to be strengthened.

The forecast expansion of New Zealand's planted forest estate to 3.5 million hectares by the year 2020 was seen as a boon for the New Zealand economy. It would benefit most New Zealanders - particularly Maori - by providing a renewable and sustainable resource, more foreign investment, new jobs, skills training and career opportunities. Even so, the survey respondents believed that, over the next 25 years, the tourism and manufacturing industries would contribute more to New Zealand's overall social, economic and environmental well-being than the forest industry.

The majority of respondents also felt that any forest expansion should not be at the expense of fertile soils better suited to pastoral agriculture.

Overall, the findings of this survey emphasised important differences in attitudes and opinions between left-of-centre and centre-right politicians, and the need for the forest industry to improve its image through more effective communications and public relations.

ACKNOWLEDGEMENTS

LIRO acknowledges the co-operation of all the politicians who participated in this survey. Thanks also to Nik Rilkoff and Joanna Kilvert, who assisted with survey administration and data entry.

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APPENDIX - QUESTIONNAIRE

CONFIDENTIAL

ATTITUDES ABOUT THE NZ FOREST INDUSTRY

JUNE 1996

RESPONDENT: ____
(Please note that all individual responses will be treated in the strictest confidence)

INTRODUCTION

LIRO is currently surveying politicians' attitudes about the New Zealand forest industry and we would really appreciate your input. The questionnaire will only take about 20-30 minutes to complete and the survey results will be used by the industry to plan its future development.

Note that we want you to be full and frank about what you think of forestry, so all individual responses will be treated in the strictest confidence.

SECTION 1: GENERAL KNOWLEDGE

In this survey *forestry* refers specifically to planted production forests. That is, forests which have been deliberately planted in order to be harvested. The ***forest industry*** includes everything from tree planting and felling, through processing, exporting and marketing.

QUESTION 1
First, what is the main species of tree grown in New Zealand's planted production forests?

ANSWER: ____________________

QUESTION 2
Are New Zealand's forests generally replanted after harvest?

ANSWER: ____________________

QUESTION 3
Is radiata pine native to New Zealand?

ANSWER: ____________________

QUESTION 4
Approximately what percentage of New Zealand's land area is currently in planted production forests?

ANSWER: ____________________

QUESTION 5
In which part of New Zealand are most of our planted forests located?

ANSWER: ____________________

QUESTION 6
Generally, how old are New Zealand's radiata pine trees when they reach their usual final-harvest age?

ANSWER: ____________________

QUESTION 7
Approximately how many people do you think are employed in forestry and processing activities in New Zealand?

ANSWER: ____________________

QUESTION 8
Approximately what percentage of New Zealand's export earnings do forest products account for?

ANSWER: ____________________

QUESTION 9
And please name as many companies as you can think of who own planted production forests in New Zealand:

____

____

SECTION 2: INITIAL CONCERNS

QUESTION 10
In your opinion, what are the main forestry-related issues in New Zealand at the moment?

____

____

____

____

____

QUESTION 11
And what are the main forestry-related issues in your electorate?

SECTION 3: PERFORMANCE INDICES

QUESTION 12
Next, how would you rate the current economic performance of the New Zealand forest industry on a scale of 0 to 10, where 0 is very poor and 10 is very good?

QUESTION 13
Why do you give it this rating?

QUESTION 14
For the next question, I would like you to just consider the ***logging industry***. That is, those parts of the forest industry involved in the harvesting of forests. How would you rate the current ***environmental performance*** of New Zealand's logging industry on a scale of 0 to 10?

QUESTION 15
Why do you give it this rating?

QUESTION 16
I would like you now to just consider the ***processing*** side of the forest industry? How would you rate the current ***environmental performance*** of the processing industries on a scale of 0 to 10?

QUESTION 17
Why do you give it this rating?

____
____
____
____

QUESTION 18
And now consider the ***forest industry as a whole***. How would you rate the current ***environmental performance*** of New Zealand's forest industry overall on a scale of 0 to 10?

☐

QUESTION 19
Why do you give it this rating?

____
____
____
____

SECTION 4: OPINIONS ABOUT SPECIFIC ISSUES
Next are a number of questions about specific forest-related issues. I would like you to state your opinion about these issues.

QUESTION 20
Do you approve of current logging practices in New Zealand?

ANSWER: ____

QUESTION 21
Do you think that the visual appearance of logging is a problem?

ANSWER: ____

QUESTION 22
Do you approve of the practice of clearfelling trees in plantation forests?

ANSWER: ____

QUESTION 23
The area of planted forest in New Zealand has been rapidly expanding since the 1960s. Do you think that the increasing volume of logs and timber being carried on our public roads is a problem?

ANSWER: ____

QUESTION 24
In your opinion, does the forest industry cause more damage than other industries to New Zealand's roads?

ANSWER: ____

QUESTION 25
Do you think that forestry truck drivers are considerate enough to other road users?

ANSWER: ____

QUESTION 26
In your opinion, do forest companies make a significant contribution to the local communities in which they operate?

ANSWER: ____

QUESTION 27
Five large companies currently account for around 80% of activity in the forest industry, especially in log and sawn timber production. Are you concerned about the New Zealand forest industry being dominated by large companies?

ANSWER: ____

QUESTION 28
Why do you think this? ____

____

____

QUESTION 29
Do you think that foreign investment in the forest industry is harmful to the New Zealand economy?

ANSWER: ____

QUESTION 30
Why? ____

____

____

QUESTION 31
Do you think that there is too much foreign ownership of New Zealand's forests?

ANSWER: ____

QUESTION 32
Do you think that foreign ownership of our planted forests means that the New Zealand forest industry has less commitment to social, economic and environmental values?

ANSWER: ____

QUESTION 33
Do you think that the social benefits from forestry outweigh the negative impacts on society?

ANSWER: ____

QUESTION 34
Why do you think this? ____________________________________
____
____

QUESTION 35
Do you think that the required environmental performance standards are being met by the forest industry?

ANSWER: ____

QUESTION 36
Do you think that these standards are strong enough?

ANSWER: ____

QUESTION 37
The area of planted forest in New Zealand is expected to expand rapidly over the next 25 years; from 1.5 million to possibly 3.5 million hectares by the year 2020. Do you think that this expansion will be good for the New Zealand economy?

ANSWER: ____

QUESTION 38
Do you think forest expansion will benefit the socio-economic status of Maori?

ANSWER: ____

QUESTION 39
Do you think forest expansion will be of benefit to the socio-economic well-being of all New Zealanders?

ANSWER: ____

QUESTION 40
In your opinion, is the replacement of farms with forests beneficial to New Zealand?

ANSWER: ____________________

QUESTION 41
Do you think that the New Zealand forest industry is taking wildlife conservation issues seriously enough?

ANSWER: ____________________

QUESTION 42
In your opinion, does forestry ruin the soil for future use?

ANSWER: ____________________

QUESTION 43
And do you think that the health and safety performance of the forest industry is worse than other industries?

ANSWER: ____________________

QUESTION 44
Approximately 30% of the volume of our annual forest harvest is exported in the form of logs and poles. What is your opinion about exporting unprocessed wood?

____
____
____

SECTION 5: LEVELS OF CONCERN
I would now like you to tell me how concerned you are about each of the following issues, using the scale: very concerned [VC], concerned [C], unconcerned [UN].

How concerned are you about:

	ISSUE	CODE
45	The behaviour of forestry truck drivers on public roads	
46	Current logging practices in New Zealand	
47	Disposal of waste from processing operations (such as pulp and paper mills)	
48	The visual appearance of logged areas	
49	The amount of logs exported for processing overseas	

	ISSUE	CODE
50	Foreign ownership of New Zealand's planted forests	
51	Having a high percentage of our forests in one species	
52	The forest industry being dominated by large companies	
53	The social effects of forest expansion	
54	Replacement of agricultural land with forests	
55	The increased usage of public roads for transportation of logs and timber	
56	Health and safety in the forest industry	
57	Conservation of native wildlife	
58	Pollution from the forest industry	
59	The effects of logging on water and soil	
60	Road damage caused by forestry trucks	
61	Use of chemicals by the forest industry	
62	And the effect of forestry on the environment as a whole	

SECTION 6: COMPARISON WITH OTHER INDUSTRIES

QUESTION 63

Over the next 25 years, which one of the following industries do you think will contribute the ***most*** to New Zealand's overall economic, social and environmental well-being:? PLEASE CIRCLE ONE RESPONSE

Agriculture 1
Forestry 2
Manufacturing 3
Tourism 4
Fishing 5

QUESTION 64

Which one of these industries would you rank ***second*** in terms of contribution to New Zealand's overall economic, social and environmental well-being over the next 25 years:? PLEASE CIRCLE ONE RESPONSE

Agriculture 1
Forestry 2
Manufacturing 3
Tourism 4
Fishing 5

QUESTION 65

And over the next 25 years, which one of these industries do you think will contribute the ***least*** to New Zealand's overall economic, social and environmental well-being:?
PLEASE CIRCLE ONE RESPONSE

Agriculture	1	Tourism	4
Forestry	2	Fishing	5
Manufacturing	3		

That completes the questionnaire. Thanks very much for helping us with this. We're working to address people's concerns well in advance of the major expansion of the industry that is forecast. Your assistance is very much appreciated.

Table 52: Opinion on whether the replacement of farms with forests was beneficial to New Zealand

Response	Beneficial (%)	Neutral (%)	Not beneficial (%)	Not Stated (%)
Left-of-centre (n=19)	15.8	57.9	5.3	21.0
Centre-Right (n=16)	18.8	43.7	0.0	37.5
Total (n=35)	17.1	51.4	2.9	28.6

returns" and was "*better for the environment*", particularly with regard to soil conservation.

The majority of respondents qualified their remarks about this issue, stating that the replacement of farms with forests was only beneficial where: the land was "*better suited to forestry*" than pastoral agriculture; farming was facing "*serious economic difficulties in the area*"; and ports and mills were not too distant from the new forests. In other words, replacement of farms with forests could only really be approved on a site-by-site basis. Generally, the feeling was that "*forests should only be planted on less productive areas*".

Six politicians favoured a "*greater mix of forests and farms*", but one other respondent expressed "*serious misgivings about seeing a considerable area of the New Zealand countryside being planted in trees*".

Asked how concerned they were about this issue, the majority of respondents (57.1%) expressed some concern (Table 53). They did not wish to see forests "*planted on fertile soils better suited to pastoral agriculture*". There was no significant difference between the levels of concern expressed by left-of-centre and centre-right politicians.

SUMMARY OF ATTITUDES ABOUT SPECIFIC FORESTRY ISSUES

Table 54 ranks the mean level of concern expressed for each of the forest-related issues considered in the survey. The greatest concern amongst politicians involved the issues of infrastructure, waste disposal, pollution, use of chemicals, and the amount of raw logs exported for processing overseas. In contrast, few politicians were very concerned about the visual impacts of logging or the forest industry being dominated by

Table 53: Level of concern about the replacement of farms with forests

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
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Centre-Right (n=16)	0.0	62.5	31.3	6.2	2.33
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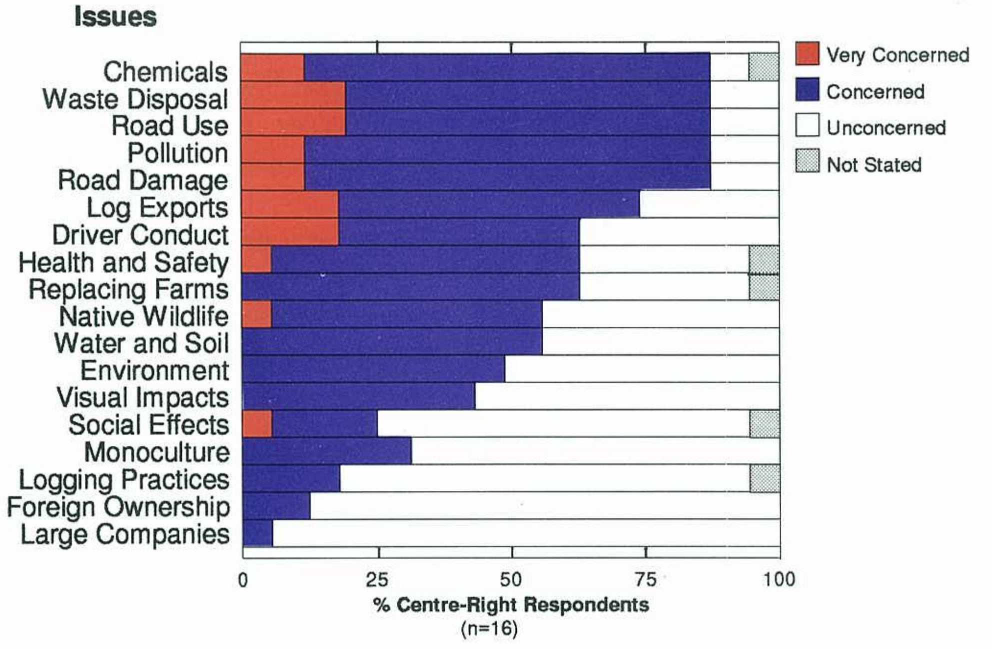

Figure 2: Level of concern amongst centre-right respondents

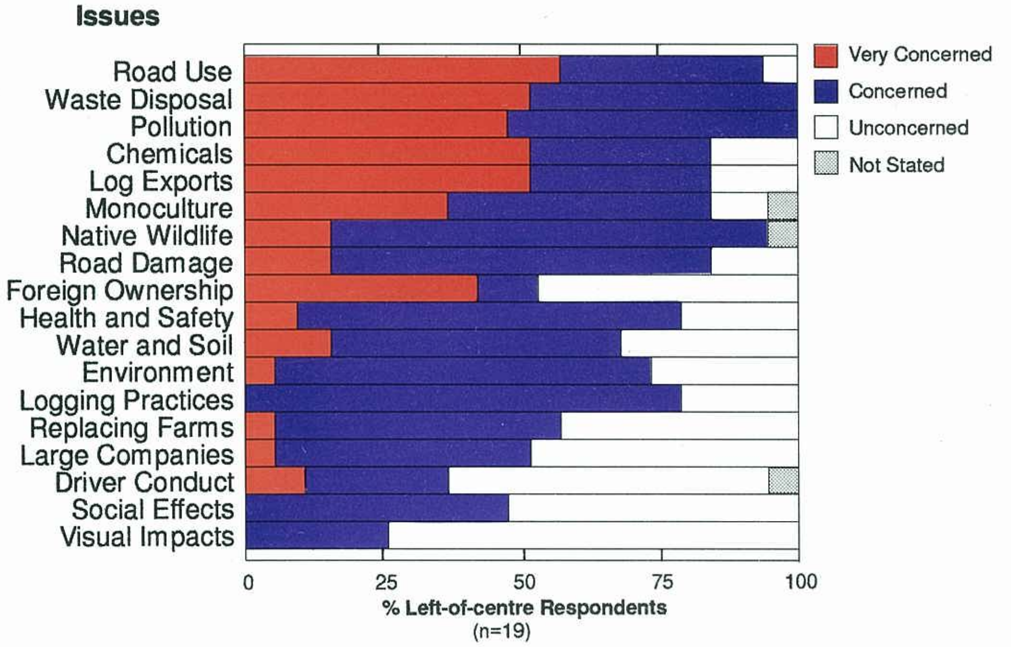

Figure 3: Level of concern amongst left-of-centre respondents

Table 52: Opinion on whether the replacement of farms with forests was beneficial to New Zealand

Response	Beneficial (%)	Neutral (%)	Not beneficial (%)	Not Stated (%)
Left-of-centre (n=19)	15.8	57.9	5.3	21.0
Centre-Right (n=16)	18.8	43.7	0.0	37.5
Total (n=35)	17.1	51.4	2.9	28.6

returns" and was "*better for the environment*", particularly with regard to soil conservation.

The majority of respondents qualified their remarks about this issue, stating that the replacement of farms with forests was only beneficial where: the land was "*better suited to forestry*" than pastoral agriculture; farming was facing "*serious economic difficulties in the area*"; and ports and mills were not too distant from the new forests. In other words, replacement of farms with forests could only really be approved on a site-by-site basis. Generally, the feeling was that "*forests should only be planted on less productive areas*".

Six politicians favoured a "*greater mix of forests and farms*", but one other respondent expressed "*serious misgivings about seeing a considerable area of the New Zealand countryside being planted in trees*".

Asked how concerned they were about this issue, the majority of respondents (57.1%) expressed some concern (Table 53). They did not wish to see forests "*planted on fertile soils better suited to pastoral agriculture*". There was no significant difference between the levels of concern expressed by left-of-centre and centre-right politicians.

SUMMARY OF ATTITUDES ABOUT SPECIFIC FORESTRY ISSUES

Table 54 ranks the mean level of concern expressed for each of the forest-related issues considered in the survey. The greatest concern amongst politicians involved the issues of infrastructure, waste disposal, pollution, use of chemicals, and the amount of raw logs exported for processing overseas. In contrast, few politicians were very concerned about the visual impacts of logging or the forest industry being dominated by

Table 53: Level of concern about the replacement of farms with forests

Concern by Political Orientation	1. Very Concerned (%)	2. Concerned (%)	3. Unconcerned (%)	0. Not Stated (%)	Mean Concern
Left-of-centre (n=19)	5.3	52.6	42.1	0.0	2.37
Centre-Right (n=16)	0.0	62.5	31.3	6.2	2.33
Total (n=27)	2.9	57.1	37.1	2.9	2.35

Table 54: Issues ranked according to mean level of concern, where 1.00 indicates that all respondents were very concerned and 3.00 means all were unconcerned

Rank	Issue	Mean (n=35)
1	Increased usage of public roads for transportation of logs and timber	1.69
2	Disposal of waste from processing operations	1.69
3	Pollution from the forest industry	1.74
4	Use of chemicals by the forest industry	1.76
5	The amount of logs exported for processing overseas	1.83
6	Road damage caused by forestry trucks	2.00
7	Conservation of native wildlife	2.09
8	Having a high percentage of our forests in one species	2.18
9	Health and safety in the forest industry	2.18
10	The behaviour of forestry truck drivers on public roads	2.29
11	The effects of logging on water and soil	2.29
12	The effect of forestry on the environment as a whole	2.34
13	Replacement of agricultural land with forests	2.35
14	Foreign ownership of New Zealand's planted forests	2.43
15	Current logging practices in New Zealand	2.47
16	The social effects of forest expansion	2.59
17	The forest industry being dominated by large companies	2.66
18	The visual appearance of logged areas	2.66

large companies, though there was some anxiety about corporations meeting their socio-economic and environmental responsibilities (Figure 1). Note, however, that for almost all of the issues, left-of-centre politicians were far more concerned than those in centre-right parties (Figures 2 and 3).

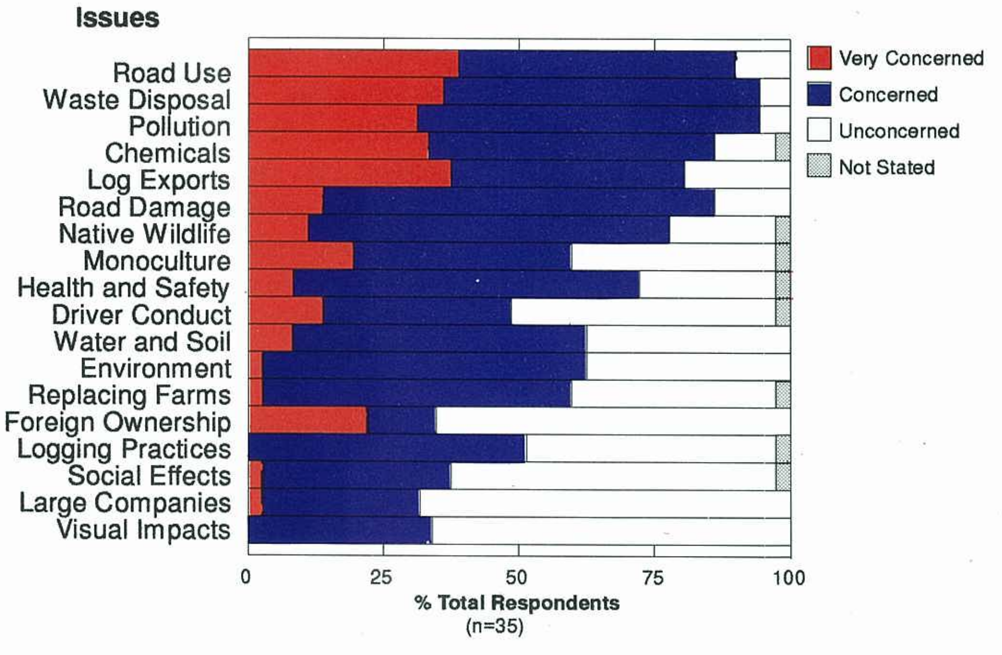

Figure 1: Survey respondents' level of concern about forestry-related issues

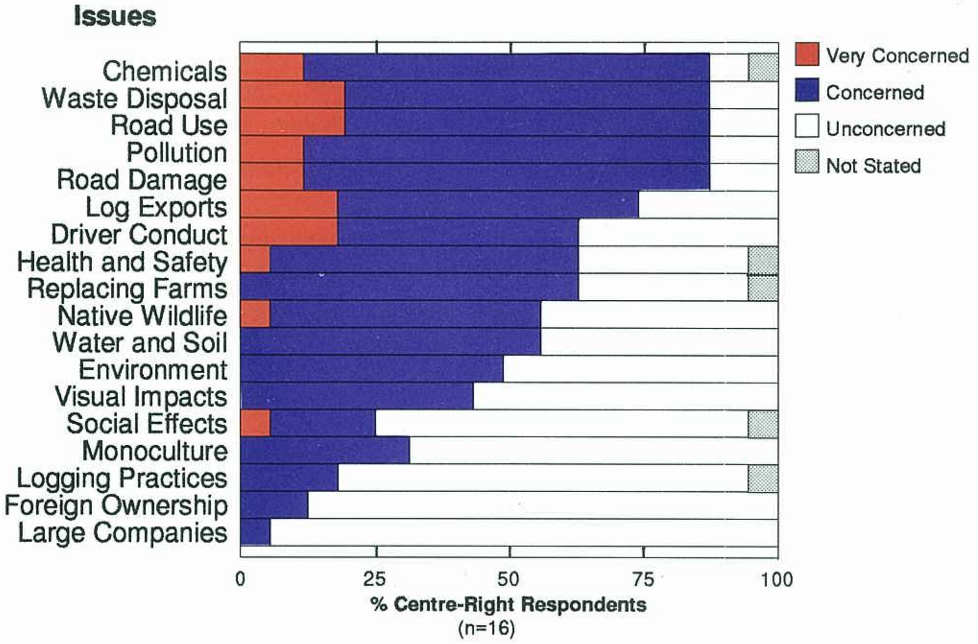

Figure 2: Level of concern amongst centre-right respondents

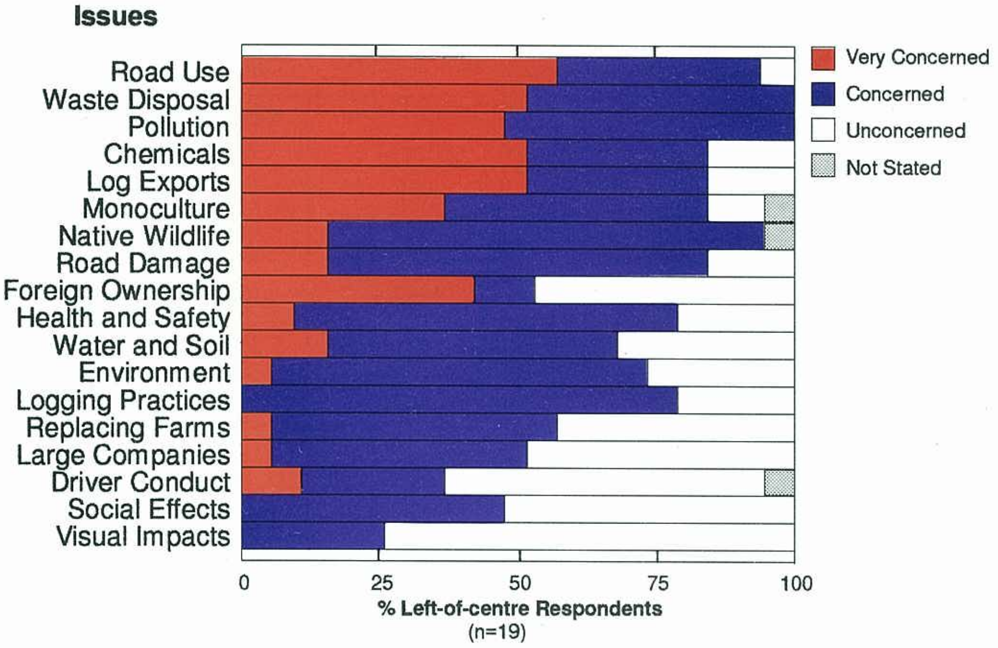

Figure 3: Level of concern amongst left-of-centre respondents

Chi-square analysis revealed that left-of-centre respondents were significantly more concerned about seven issues (Table 55). They were considerably more inclined to state that the forest industry should:

- plant a greater variety of trees;
- have *"more regard to site-values"* and *"environmentally friendly practices"* when felling trees in *"sensitive areas"*;
- give greater consideration to wildlife conservation;
- reduce the use of certain chemicals, particularly in processing operations; and
- reduce pollution.

They were also far more inclined to be concerned about *"excessive"* foreign ownership and the industry being dominated by large corporations. There was a strong belief that the operation of multi-national or foreign-owned corporations resulted in *"profits going overseas"*, together with potentially *"less consideration of, and commitment to, local communities"* and environmental values.

There were only three issues that left-of-centre politicians were less concerned about than politicians from centre-right parties. These pertained to forestry truck driver conduct, the visual impacts of logging, and the replacement of pasture with forests.

The unprompted responses about national issues of importance (Table 9) indicated that centre-right politicians had some concern about forest pests/diseases and border control. Unfortunately, the survey did not include any questions to measure politicians' concerns and opinions

Table 55: Political differences in concern about forestry-related issues

Concern by Political Orientation	Left-of-centre (Mean)	Centre-Right (Mean)	Significance (P-value)
Increased usage of public roads	1.47	1.94	ns
Disposal of waste from processing	1.47	1.94	ns
Pollution from the forest industry	1.53	2.00	*
Use of chemicals by the forest industry	1.63	1.93	*
Amount of logs exported for processing	1.63	2.06	ns
Road damage caused by forestry trucks	2.00	2.00	ns
Conservation of native wildlife	1.83	2.38	**
High percentage of forests in one species	1.72	2.69	***
Health and safety in the forest industry	2.11	2.27	ns
Behaviour of truck drivers on public roads	2.50	2.19	ns
Effects of logging on water and soil	2.16	2.44	ns
Effect of forestry on environment	2.21	2.50	ns
Replacement of pasture with forests	2.37	2.33	ns
Foreign ownership of planted forests	2.05	2.88	*
Current logging practices	2.21	2.80	***
Social effects of forest expansion	2.53	2.67	ns
Industry dominated by large companies	2.42	2.94	*
Visual appearance of logged areas	2.74	2.56	ns

where: not significant = ns; p-value<0.05 = *; p-value<0.01 = **; p-value<0.001 = ***