THE PUBLIC'S EVALUATION OF LAND USE OPTIONS IN TWO NEW ZEALAND REGIONS

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ABSTRACT

This paper, which is based on an analysis of 920 interviews carried out in the Nelson and East Coast (North Island) regions, explores the attitudes and perceptions residents have towards selected future development options. The study is essentially a continuation of earlier research carried out by the writers in Mangonui County, Northland.

Respondents in both regions generally preferred the future development of farming and horticulture for their own community and the region as a whole. State forestry received moderate support from East Coasters, but found little favour among Nelson respondents. Tourism and fishing generally found more support in Nelson region; private company forestry had little support in either region.

Our data show that, while the public at large may share similar attitudes towards various development options, their perceptions of these developments can vary considerably from region to region. This would suggest that, although changes in land use raise the issues we have observed, it is local conditions — reflecting personal experiences — that determine the extent to which particular attitudes and issues become important.

INTRODUCTION

Over the past few years, planning tribunal hearings (held under the provisions of the Town and Country Planning Act, 1977) have been dominated by land use interest groups vociferously justifying their claims over other resource competitors. Particularly relevant to the forestry sector have been the series of hearings relating to the district schemes of those rural county councils who have opted to zone forestry as a "conditional use" rather than a "predominant use". Recent such debates have taken place in Wairoa, Taumarunui, Hobson and Clutha counties.

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Notwithstanding the concern expressed within some parts of the forestry sector about the lack of involvement in planning, particularly at the early stages of the process (Makin and Smith, 1982: 128), a feature of these debates is the high profile maintained by the powerful sector interest groups — particularly those involving farming and forestry. In spite of claims of a high degree of compatability with community held views, the extent to which the views of the wider community are reflected is a matter for debate.

Frequently the reactions and attitudes of the public become lost in the polarisation of views that our adversary planning system tends to encourage. The sparsity of reliable data on many aspects of development too often leads to the negative strategy of undermining the opposition's arguments, rather than positively promoting one's own case — a case developed on the basis of reliable information. Generally parties adopt defensive stances, with the whole concept of wider community participation in planning being lost in an atmosphere of negativism and mutual suspicion.

The level of public support for various development possibilities is often disregarded as planning decisions continue to be taken in centralised organisations crowded by the opinion of "experts".

Projected assessments of growth proposals often concentrate on employment and income advantages whilst ignoring the range of specific community characteristics which so often affect the benefits which finally accrue to the locality concerned. Factors such as: (1) the way in which residents (particularly newcomers) involve themselves in their communities (Rank and Voss, 1982); (2) a community's approach to the handling of conflict (Nowak *et al.*, 1982); and (3) the attitudes residents have towards development (Maurer and Napier, 1981) are each important in piecing together a picture of the way a community might be affected by the prospect of change.

The paper focuses on the last of these with the intention of further exploring community and regional attitudes to growth options. In essence the study is a continuation of that carried out in Mangonui County (Northland) (Smith and Wilson, 1982) in which we describe and comment on the variation in support for different resource options, and the reasons residents offer for their preferred choice of land/resource development. In the interests of formulating growth strategies which tie in better with local aspirations, it would seem essential that we

understand more fully the concerns and anxieties people have with regard to different resource activities. The aim of this study is to help in the development of such an understanding.

Further to this, we hope to gain some idea as to the degree of similarity in attitudes between, and within, regions in order to comment on whether attitudes to growth opinions appear to be affected by the same local variation as that observed in studies on the socio-economic impacts of growth options (Rogers *et al.*, 1978; Seyler, 1979).

METHOD

Information was collected by means of structured interviews using the same questionnaire as that employed in the Mangonui County study (Smith and Wilson, 1982). The sample of those to be interviewed was developed from a systematic sample of occupied dwellings within the study region. The resident aged 15 years or over whose birthday fell next was the person questioned. A replacement address was substituted after three unsuccessful callbacks. The samples consisted of 444 interviews in the East Coast region (244 in Waiapu County and 200 in Gisborne City) and 476 interviews in the Nelson region (223 in Nelson City and 253 in Waimea County). These interviews were administered through the University of Auckland Applied Research Office and the Victoria University of Wellington, respectively. This was seen as a desirable way of organising the fieldwork given the likelihood of people's responses about forestry being influenced by the writers' link with the Forest Research Institute.

Other than a bias towards female respondents, the samples were representative of the respected populations. We would point out here that cross-tabulations by sex show no significant differences in the responses to the range of questions asked. In this respect the study ties in with our observations in Mangonui County. Given the timing of these interviews (summer, 1981-2) we recognise that issues are not necessarily stable over time and that new issues can displace older ones quite suddenly. However, we would also suggest that the underlying causes of public concern are likely to be much more stable and it is towards the identification of these causes that the study is aimed. Questions of the "forced choice", Likert scale, and open-ended type were used. In the data interpretation below, information from other documentary sources is used in conjunction with that gained

from the interviews. The average error bound on the responses lies at just under ± 5% at the 95% confidence level.

STUDY LOCATIONS

The two locations chosen for the research were the East Coast of the North Island (specifically Waiapu County and Gisborne city) and the Nelson region (Waimea County, including the Nelson Urban Area). This choice was made primarily because both are key priority areas in New Zealand Forest Service planning.

The East Coast region of the North Island has been undergoing severe outmigration in the last two decades. A large proportion of this outflow has been made up of young Maoris moving from small rural settlements to the large urban centres of Auckland and Wellington. Although the region can be described as a "farming region" it suffers from considerable soil erosion. Much of the justification for the presence of forestry derives from its "protective role" as a partial solution to this problem. In recent years more emphasis has been placed on forestry's "productive" qualities with private sector plantings now outstripping that of the State's. Currently the forest resource in the Gisborne Planning District stands at some 50 000 ha — one-third of which is privately owned. The coastal bays of the area are a favourite haunt of the holiday maker, particularly during the summer months. Gisborne, with a population of about 30 000, provides the major servicing centre of this mixed farming region.

Waimea county, at the top of the South Island, is an important tourist and horticultural region with some reports claiming large potential increases in both export earnings and employment creation for the latter sector (*e.g., National Business Review*, November 15, 1982, p.35). Farming (beef, sheep, and dairy) provides a major proportion of the economic activity of the region, with over 80 000 ha of the county being in grassland. Golden Downs State Forest and Baigents' forests form major landmarks covering some 50 000 ha. Forestry has featured frequently in the media with much comment being directed at the plans of the CSR-Baigent consortium to build a pulp mill on the Eves Valley site some 27 km south of Nelson city. These plans did not materialise in their original form and instead Baigents are building a $30 million sawmill-chipmill complex on the Eves Valley site they recently purchased from CSR of Australia.

RESULTS

This section is presented under five headings: Perception of development; development preferences; opposition to development; public influence and decision-making; and problems facing the community.

1. *Perception of Development*

The respondents from both regions generally agreed that future development would occur in most of the services, facilities, and industries asked about (Tables 1 and 2). This was particularly true in Nelson where the vast majority of the respondents envisaged future growth in all the options offered in the questionnaire, except medical services. East Coasters were perhaps a little less optimistic and a considerable number of the respondents believed that no further development would occur.

The East Coast sample saw the greatest developments occurring in State forestry (88.3%) and horticulture (85.8%), while Nelson respondents held wider views and believed that future growth would occur in horticulture (81.1%), State forestry (78.4%), tourism (78.2%), and private company forestry (76.3%).

TABLE 1: PERCEPTION OF FUTURE DEVELOPMENT OF VARIOUS SERVICES, FACILITIES, AND INDUSTRIES FOR EAST COAST
(n=444)

	%of Sample		
	Further Development	*No Further Development*	*Don't Know*
Educational services	52.7	38.7	8.6
Medical services	51.8	42.8	5.4
Shopping facilities	51.3	45.5	3.2
Transport and roading	45.7	51.6	2.7
Farming	57.2	34.2	8.6
Tourism	52.5	42.3	5.2
Private company forestry	63.3	19.4	17.3
State forestry	88.3	5.2	6.5
Fishing	43.0	47.5	9.5
Horticulture	85.8	10.6	3.6

TABLE 2: PERCEPTION OF FUTURE DEVELOPMENT OF VARIOUS SERVICES, FACILITIES AND INDUSTRIES FOR NELSON
(n=476)

	% of Sample		
	Further Development	*No Further Development*	*Don't Know*
Educational services	50.2	39.7	10.1
Medical services	47.7	46.2	6.1
Shopping facilities	58.2	38.4	3.4
Transport and roading	50.8	40.8	8.4
Farming	60.3	28.6	11.1
Tourism	78.2	17.6	4.2
Private company forestry	76.3	13.0	10.7
State forestry	78.4	13.0	8.6
Fishing	60.7	29.2	10.1
Horticulture	81.1	11.8	7.1

2. *Development Preferences*

In a question offering the last six development options from Tables 1 and 2, namely, farming, tourism, private company forestry, State forestry, fishing and horticulture, the respondents were asked to nominate the industry they would most prefer to see develop in their own community and in the region generally. These preferences (Table 3) show that farming and horticulture are regarded favourably by East Coast and Nelson respondents alike. Horticulture was particularly popular in Nelson where 43.9% of the sample preferred it for their own community, and 35% preferred it for the region as a whole. This is perhaps hardly surprising when one considers the important economic role horticulture plays in the Nelson region.

State forestry received moderate support from East Coasters, particularly with respect to the region (29.8%), yet found little favour with Nelson respondents where only 6.4% preferred it for their community, and 6.2% preferred it for the region. Private company forestry, on the other hand, had little support from either sample. Tourism and fishing generally found more

TABLE 3: FIRST PREFERENCE FOR INDUSTRY FOR OWN COMMUNITY AND FOR REGION GENERALLY

Industry	*% of Sample*			
	East Coast		*Nelson*	
	Comm.	*Region*	*Comm.*	*Region*
Farming	32.1	31.7	25.1	13.6
Tourism	11.4	5.5	10.5	19.2
Private company forestry	4.7	7.2	3.6	8.8
State forestry	16.9	29.8	6.4	6.2
Fishing	6.9	4.9	10.5	17.2
Horticulture	28.0	20.9	43.9	35.0
	100.0	100.0	100.0	100.0
	(*n*=444)		(*n*=476)	

support in Nelson, although 11.4% of the East Coast sample would be happy to have it develop in their own community.

Using only the top three ranked industries from each sample area, the reasons given by the respondents for making their nominations are set out in Tables 4 to 10. This segment of the data was obtained through the use of "open-ended" questions. No prompting of the respondent was involved.

As Table 4 shows, nearly one-third of the East Coast respondents who prefer to see farming develop, do so because they regard it as a productive use of the land. Other reasons to rate highly were that it was "already established" with 12.6 and 11.4%, and "employment creation" with 8.1 and 12.9%. No single reason stands out with respect to the Nelson respondents'

TABLE 4: WHY EAST COAST RESPONDENTS FAVOUR FARMING

Response	*% of Those Favouring Farming*	
	Community (n=*142*)	*Region* (n=*140*)
Productive land use	29.6	30.3
Already established	12.6	11.4
Personal reasons or situation	12.6	7.6
Backbone of country	10.4	9.1
Lifestyle preference	10.4	6.1
Employment creation	8.1	12.9
Suits character of area	3.0	4.5
Other responses	13.3	18.1
	100.0	100.0

TABLE 5: WHY NELSON RESPONDENTS FAVOUR FARMING

Response	*% of Those Favouring Farming*	
	Community (n=*119*)	*Region* (n=*65*)
Lifestyle preference	14.3	8.3
Personal reasons or situation	14.3	14.6
Suits character of area	14.3	10.4
Backbone of country	13.3	14.6
Productive land use	12.2	18.7
Already established	6.1	4.2
Employment creation	5.1	6.2
Other responses	20.4	23.0
	100.0	100.0

support for farming (Table 5), the reasons being fairly evenly distributed amongst "life-style preference", "backbone of the country", "personal reasons or situation", "suits character of area", and "productive land use".

Horticulture was preferred mainly for its employment creating or productive land using capability. On the East Coast (Table 6) these two reasons accounted for a sizable 61.9% of the total reasons respondents favoured it for their own community, and an overwhelming 74.7% of the reasons it was preferred for the region as a whole. The equivalent figures for Nelson (Table 7) were 51.1 and 54.6%. Another reason to feature in both samples was the belief that horticulture has future potential.

TABLE 6: WHY EAST COAST RESPONDENTS FAVOUR HORTICULTURE

Response	*% of Those Favouring Horticulture*	
	Community (n=*124*)	*Region* (n=*93*)
Employment creation	33.9	39.1
Productive land use	28.0	35.6
Potential future development	11.9	5.8
Generates income	11.0	4.6
Other responses	15.2	14.9
	100.0	100.0

TABLE 7: WHY NELSON RESPONDENTS FAVOUR HORTICULTURE

Response	*% of Those Favouring Horticulture*	
	Community (n=*209*)	*Region* (n=*167*)
Productive land use	37.4	44.5
Employment creation	13.7	10.1
Suits character of area	11.5	9.2
Potential future development	6.9	10.9
Other responses	30.5	25.3
	100.0	100.0

The ability to create employment was by far the most common reason for East Coast respondents favouring State forestry. As Table 8 shows, this reason accounted for 67.6 and 55.6% of the total reasons it was favoured for the community and the region, respectively. These figures compare closely with those found in Mangonui County (Smith and Wilson, 1982: 109-10), where the corresponding figures were 53.6 and 51.4%.

TABLE 8: WHY EAST COAST RESPONDENTS FAVOUR STATE FORESTRY

Response	*% of Those Favouring State Forestry*	
	Community (n=*75*)	*Region* (n=*132*)
Employment creation	67.6	55.6
Productive land use	9.9	13.7
Generates income	5.6	7.3
Other responses	16.9	23.4
	100.0	100.0

Tourism in Nelson (Table 9) is favoured because it "generates income", 39.0 and 35.3%, the "area is suited to it", 19.5 and 19.1%, and it "attracts people to the area", 17.1 and 5.9%. Fishing (Table 10) is preferred because respondents believe the "area is suited to it", 41.5 and 50.9%, "it benefits whole community", 12.2 and 3.3%, and it allows for "personal involvement", 12.2 and 9.8%.

TABLE 9: WHY NELSON RESPONDENTS FAVOUR TOURISM

Response	*% of Those Favouring Tourism*	
	Community (n=*50*)	*Region* (n=*91*)
Generates income	39.0	35.3
Area is suited to it	19.5	19.1
Attracts people to area	17.1	5.9
Great potential	4.9	13.2
Other responses	19.5	26.5
	100.0	100.0

TABLE 10: WHY NELSON RESPONDENTS FAVOUR FISHING

Response	*% of Those Favouring Fishing*	
	Community (n=*50*)	*Region* (n=*82*)
Area suited to it	41.5	50.9
Benefits whole community	12.2	3.3
Personal involvement	12.2	9.8
Creates employment	9.8	3.3
Lifestyle preference	7.3	4.9
Already established	4.9	8.2
Other responses	12.1	19.6
	100.0	100.0

3. *Opposition to Development*

With regard to the six defined sectors, respondents were asked to nominate that particular sector that they would be most against being developed in their own community and in the region as a whole.

The indication from Table 11 is that half the population do not oppose any form of growth within either their own community specifically or their regional environment. Farming and horticulture have obvious support in the two regions (see Table 3) and the corollary holds in that few people perceive there to be any problems associated with either sector. The most opposed sector (remembering that roughly half of those spoken to are not opposed to any industry) is closely contested by tourism and private forestry. State forestry registers slightly less opposition.

TABLE 11: OPPOSITION TO INDUSTRY FOR OWN COMMUNITY AND FOR REGION GENERALLY

Industry	% of Sample			
	East Coast		Nelson	
	Community	Region	Community	Region
Farming	1.0	0.5	0.9	0.7
Tourism	15.8	13.9	17.7	12.4
Private company forestry	13.7	12.9	17.7	14.9
State forestry	12.0	12.1	10.1	10.6
Fishing	6.6	6.2	4.3	2.7
Horticulture	0.7	1.0	1.3	0.4
Not opposed to any industry	50.2	53.4	48.0	58.3
	100.0	100.0	100.0	100.0
	(n=444)		(n=476)	

The obvious concern with the tourist industry was also firmly expressed in our study of Mangonui County (Smith and Wilson, 1982: 111-2). The reason for this concern (see Tables 12 and 13), seems to be a desire to conserve the natural and social character of the region. On the East Coast, well over a third of those opposing tourism did so on the basis of its exploitation of natural resources. Tourism's ability to attract people into an area, and so to change the character of a region or a community, was the source of unhappiness for just over a third of the East Coast respondents. In Nelson, these two concerns accounted for an overwhelming three-quarters of the total responses from those who were against tourism. A few people were concerned over the narrow distribution of the local benefits from tourist activity.

TABLE 12: WHY EAST COAST RESPONDENTS OPPOSE TOURISM

Response	% of Those Opposing Tourism	
	Community (n=70)	Region (n=62)
Exploitation of natural resources	35.9	40.0
Attracts people into area	26.6	27.3
Changes character of area	12.5	12.7
No resources for it	10.9	7.3
Benefits only a few	10.9	5.5
Other responses	3.2	7.2
	100.0	100.0

TABLE 13: WHY NELSON RESPONDENTS OPPOSE TOURISM

Response	*% of Those Opposing Tourism*	
	Community (n=84)	*Region* (n=59)
Changes character of area	62.0	62.2
Attracts people into area	16.5	15.1
Benefits only a few	11.4	13.2
Other responses	10.1	9.5
	100.0	100.0

This latter problem emerges as the prime concern of over a third of those opposed to private forestry in Waiapu County and the Gisborne urban area (Table 14). The protective role claimed for forestry on the East Coast has perhaps been successful as no respondent specifically nominated environmental reasons as the grounds of their malcontent with further development of private forestry. To some extent this also comes through in Nelson (Table 15). The perception that land used by private forestry is of a quality above that required was put forward by a few respondents, but an even greater number preferred State involvement to the presence of private company interests. We will further investigate this important point below.

TABLE 14: WHY EAST COAST RESPONDENTS OPPOSE PRIVATE COMPANY FORESTRY

Response	*% of Those Opposing Private Company Forestry*	
	Community (n=61)	*Region* (n=57)
Benefits only a few	35.7	39.2
Prefer State ownership	23.2	19.6
Land too good for it	12.5	9.8
Exploitation of natural resources	10.7	13.7
No resources for it	5.4	5.9
Other responses	12.5	11.8
	100.0	100.0

TABLE 15: WHY NELSON RESPONDENTS OPPOSE PRIVATE COMPANY FORESTRY

Response	*% of Those Opposing Private Company Forestry*	
	Community (n=*84*)	*Region* (n=*71*)
Environmental reasons	24.0	10.0
Prefer State ownership	16.5	26.7
Would let in foreign interests	16.5	11.7
Land too good for it	15.2	11.7
Exploitation of natural resources	13.9	21.7
Other responses	13.9	18.2
	100.0	100.0

State forestry, although opposed by slightly fewer people than private company forestry (see Tables 16 and 17), draws much of its opposition from the perceived encroachment of State forestry activity on to land that is "too good for it". Although this comment is also applicable to people's reactions to private forestry, it is a much more prevalent sentiment in respect of State forestry. People's general concern over monopolies and environmental deterioration also show through in respect of the State's role in the forestry sector.

TABLE 16: WHY EAST COAST RESPONDENTS OPPOSE STATE FORESTRY

Response	*% of Those Opposing State Forestry*	
	Community (n=*53*)	*Region* (n=*54*)
Land too good for it	46.8	43.8
Monopolistic competition	19.2	20.8
Exploitation of natural resources	12.8	16.7
Environmental reasons	12.8	10.4
Other responses	8.4	8.3
	100.0	100.0

4. *Public Influence and Decision-making*

Unlike the Far North study (Smith and Wilson, 1982: 115) where over three-quarters of the respondents believed they had no influence over the shape of development in or near their own

TABLE 17: WHY NELSON RESPONDENTS OPPOSE STATE FORESTRY

Response	*% of Those Opposing State Forestry*	
	Community (n=48)	*Region* (n=50)
Land too good for it	28.9	20.8
Environmental reasons	22.2	25.0
Monopolistic competition	17.8	20.8
Would change climate	6.7	2.1
Exploitation of natural resources	2.3	14.6
Other responses	22.1	16.7
	100.0	100.0

community, nearly two-thirds of those interviewed on the East Coast and in Nelson felt they did have an impact on the direction of various growth options (Table 18).

TABLE 18: INFLUENCE OVER DEVELOPMENTS IN OR NEAR OWN COMMUNITY

View expressed	*% of Sample*	
	East Coast (n=444)	*Nelson* (n=476)
Have no influence	32.7	34.4
Have some influence	64.9	64.9
Don't know	2.4	1.7
	100.0	100.0

However, like the Far North study, the extent of the influence perceived by the respondents directly contrasts with their desire to influence developments (Table 19).

TABLE 19: DESIRE TO HAVE INFLUENCE OVER DEVELOPMENTS IN COMMUNITY

View expressed	*% of Sample*	
	East Coast (n =444)	*Nelson* (n=476)
Have no desire	64.6	64.5
Have some desire	34.5	34.0
Don't know	0.9	1.5
	100.0	100.0

In this attitudinal climate, the prospects of developing a style of planning which fully incorporates a wide base of public input must be remote.,

5. *Problems facing the Community*

Using an open-ended format, respondents were asked to state what they regarded as the major problem facing their community. The responses were content analysed and separated into urban and rural subsamples. Tables 20 and 21 set out the categories under which the respondents' concerns were arranged.

Unemployment causes the greatest concern among respondents, whether they resided in an urban or a rural setting. However, Nelson City respondents regard unemployment as much less of a problem than their Gisborne City counterparts. Only 11.2% saw it as a problem in Nelson City as opposed to a sizable 49% in Gisborne. This difference of opinion does not appear to stem from the amount of unemployment experienced by these cities as both shared similar rates at the time of the survey.

After unemployment, East Coasters saw "tribal and social problems" (12.3 and 12.5%), "isolation and transport costs"

TABLE 20: MAIN PROBLEMS FACING OWN COMMUNITY IN FUTURE (EAST COAST)

Problem Concern	*% of Sample*	
	Rural (n=*244*)	*Urban* (n=*200*)
Unemployment	28.3	49.0
Tribal and social problems	12.3	12.5
Isolation and transport costs	7.4	7.0
Housing shortage	7.4	4.5
Land problems	3.7	0.0
Cost of living	3.3	2.0
Lack of services	3.3	2.5
Education system	2.9	0.5
Depopulation	2.5	2.0
Community spirit, apathy	2.5	0.5
Expanding facilities	1.6	1.0
Forestry and its effects	1.6	0.5
Reorganising land use	1.6	0.5
Water shortage	0.8	5.0
Recreation for young	0.4	3.0
No problems	10.7	2.5
Other problems	4.4	4.5
Don't know, etc.	5.3	2.5
	100.0	100.0

TABLE 21: MAIN PROBLEMS FACING OWN COMMUNITY IN FUTURE (NELSON)

Problem Concern	*% of Sample*	
	Rural (n=253)	*Urban* (n=223)
Unemployment	23.7	11.2
Pulpmill and its effects	7.1	0.0
Water shortage	5.9	3.6
Lack of services	5.5	10.8
Cost of living	5.1	6.7
Reorganising land use	4.7	0.4
Housing shortage	4.0	5.4
Depopulation	4.0	1.8
Isolation and transport costs	3.2	3.1
Recreation for young	3.2	1.3
Growth in industry	3.2	0.0
Social problems	2.4	5.4
Pollution	0.8	3.6
Over-production	0.0	9.0
No problems	4.3	12.6
Other problems	9.1	20.3
Don't know, etc.	13.8	14.8
	100.0	100.0

(7.4 and 7.0%, and "housing shortages" (7.4 and 4.5%) as potential future problem areas.

The Nelson sample, on the other hand, exposed differences between the attitudes of rural and urban respondents. For example, the proposed pulp mill was a concern only to the rural respondents, whereas the problem of "over production" appears to affect only Nelson city residents. Common ground did exist, in areas such as "water shortage" (5.9 and 3.6%), "lack of services" (5.5 and 10.8%), and the "cost of living" (5.1 and 6.7%).

DISCUSSIONS AND CONCLUSIONS

Our data show that, whereas the public may share similar attitudes towards various development options, their perceptions of these developments can vary considerably from region to region. This would suggest that, while structural changes in land use may raise the sorts of issues we have observed, it is situation conditions — reflecting personal experiences — that determine the extent to which particular attitudes and issues become

important. This "situational" versus "structural" proposition was also raised in our Mangonui County study (see Smith and Wilson, 1982: 117).

Of the primary sectors, forestry and horticulture are perceived to be the sectors with the greatest growth potential. There is evidence, however, that there is somewhat of a contradiction in people's minds between perceived growth potential and preferred growth. Forestry (especially private company forestry) and tourism, do not feature well in the popularity stakes in either region when one compares their level of support with that given to farming and horticulture. In looking at the reasons for this variation in support, it appears that the opposition to forestry and tourism is based on a number of consistent concerns that can be subsumed under two main themes, namely, the concern of communities with environmental deterioration and increased external control. Some selective but brief evaluation is appropriate.

With regard to environmental issues, there are a number of concerns which any proposed expansion by the forestry sector appears to bring forth. Amongst the more frequently discussed are the management of indigenous forests, the association of water pollution with the activity of large pulp and paper plants, and the problems relating to the competing usage of roading systems and the allocation of costs associated with their upkeep. Certainly the combination of increased leisure time and depleting natural environments has contributed to a growing concern about the fate of natural environments in New Zealand (Bignell and Smith, 1983).

As a reaction to this increasing sensitivity, forestry interests have, in the main, assumed that any opposition to forestry based on these grounds can be traced back to a vociferous minority. To some extent research suports this point of view in that Hay (1976) notes in his Australian survey that only 12% of the sample could claim to have been actively involved on conservation issues, with most of these focusing on local disagreements. Furthermore, it appears that environmental concern tends to be associated with urban rather than rural dwellers (Tremblay and Dunlop, 1978). However, the responses from the East Coast and Nelson samples do show that opposition to forestry does have a dimension of environmental anxiety running through it. Moreover, the forestry sector cannot ignore the questioning of their environmental stance, particularly in respect of indigenous forest management. Recent surveys show that the majority of those

living in larger urban populations desire to have native forests made protected areas (Bignell *et al.*, 1980: 39); Murphy 1981).

In respect of the fear people have over the greater external influence in planning decisions associated with large-scale forestry, primarily because of its corporate nature, our data suggest that a curious irony is playing itself out in our rural regions. Our research in Mangonui County shows that there is clearly embedded in the minds of rural people a distrust of any activity associated with large-scale, capital-intensive ventures. This goes some way to explaining the lumping of tourism together with forestry as the least favoured industry.

The observed decision for some rural counties to declare forestry a "conditional use" in their district planning schemes has had the effect of promoting forestry of the very form that triggers these concerns that these counties wish to eliminate. We do not have the space to expand at length here; suffice to say that restricting forestry to the more "difficult" land encourages the development of a format better suited to such an environment — namely, that based on large capital inputs. Land use restrictions, we would argue, defeat the very purposes for which they were put into operation.

The relevance of the above two themes to the current debate about the concept of "best" land use derives in part from the way forestry interests have presented their cases and have responded to criticism about their activities in a society that has pastoral farming as an integral part of its economic and social history.

Irrespective of the tendency for such debates to focus on "values" rather than "facts" with all the difficulty and confusion that this entails, it is nevertheless true that in some instances forestry representatives have acquitted themselves with less than requisite skill. Of course, it should be said that to some extent they have become further victims of a planning system in which the parties become predisposed to the hanging of their opposition.

In this paper we have analysed the views of people living in two New Zealand regions about land use options and have extracted what our data show to be important concerns for further comment. We want to emphasise, however, that land use attitudes form only one part of the equation in the search for a better understanding of land use conflict. For land use sectors to be successful in pursuing solutions to such conflict, effort will need to be directed at more than just better information flow and improved public relations — in other words activities aimed at changing public views. Rather, the develop-

ment of a viable land use policy will need to give explicit recognition to the fact that there are fundamental incompatabilities between forestry and other land uses in respect of project scale and ownership structure. While the need for such an approach is hinted at in Makin and Smith (1982: 127-9), an immense amount of work remains to be done to improve our understanding of the implications of these incompatabilities for better land use planning. Any such work will need to pay due regard to the broadened agenda of rural research that is developing worldwide (Buttel and Newby, 1980) — an agenda that is already helping to shed further light on the import of scale and ownership for effective resource utilisation and community change (Summers and Bloomquist, 1982).

An interpretation of conflict over competing resource use must incorporate factors such as attitudes to property, methods of managing rural resources, the state's role in land use planning, and the shape of local power relations. The results of this study may imply that local data on, for example, employment and income are irrelevant to the decisions reached in any particular case. The structural contradictions noted above may make conflict endemic to rural planning. To resolve the conflict, it will be necessary to change the way in which the representatives of the sectors that use our rural resources participate in the rural localities. The key issue in rural resource planning is the harmonising of large- and small-scale activities, private and corporately owned operations, and top-down and bottom-up planning.

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