

The implications for farm foresters and smaller forestry companies are more serious. Many Canterbury hill properties have marginal areas that are suited to trees. Afforestation of these areas may be important to the economic future of these properties (Etherington 2002). Even if most proposed forestry areas in the hills are likely to gain consent, the costs and delays created by the consent process are seen as just one more obstacle for the weary farmer.

More generally, if ECan is prepared to create restrictive regulations on a precautionary basis, it does not help the confidence of the forestry investor. The regulatory approach taken by TDC may not have pleased the forestry companies, but at least the restrictions on forestry were specifically targeted rather than precautionary.

At the time of writing, ECan are still receiving submissions on the amended chapter 6 discussion document. It remains to be seen whether ECan will respond to the views of forest owners and farm foresters. If ECan chooses to notify chapter 6 as a proposed plan in its present form, some private landowners have indicated they are prepared to challenge the proposed

plan in the Environment Court.

References

- ECan. 2001: Discussion draft: Canterbury Natural Resources Regional Plan, Chapter 6. Impacts of Afforestation on Water. Report No R01/27. Environment Canterbury, Christchurch.
- ECan. 2002.: Discussion draft: Canterbury Natural Resources Regional Plan, Chapter 6. Impacts of Afforestation on Water. Report No R01/27 (amended). Environment Canterbury, Christchurch.
- Etherington, C. 2002: Open Letter to all ECan Councilors (unpublished).
- Perley, C. 1996: Regional Water Plans: Forestry and Water and Soil Relationships. Submission to Southland Regional Council (unpublished).
- Perry, C. 2000: Water resources and land use opportunities. *RM Update* 5:6. Ministry of Agriculture and Forestry, Wellington.
- Robb, C. 2000: Water allocation - a national picture. *RM Update* 5:4-5. Ministry of Agriculture and Forestry, Wellington.

Local community attitudes to plantation forestry, Gisborne/East Coast region

Lisa Langer and Tim Barnard¹

Background

Forest Research and Lincoln University are collaborating in a study of the social and economic developments of communities experiencing land-use change. A survey was carried out in 1999/2000 in the Gisborne/East Coast area (Fairweather *et al.* 2001) to determine the attitudes to land-use change and development, and to assess attitudes towards specific industries such as forestry.

The attitude survey used a random sampling technique and included questions similar to those of an earlier attitude survey conducted in the East Coast region in 1994 (Wall & Cocklin 1996). The views of Māori (42% of the Gisborne/East Coast population, Statistics New Zealand 1998), non-Māori, rural (35% of the population), and urban participants were analysed and compared. Changes in community attitudes to forestry over the 6-year period since the earlier survey were examined. This article provides a summary of the results that relate specifically to forestry.

How did we seek community attitudes?

People from the Gisborne/East Coast community were randomly selected from the 1999 Māori and General Electoral Rolls in five selected rural areas centred on

small towns (Te Araroa, Ruatoria, Tokomaru Bay, Tolaga Bay and Te Karaka) and the urban area of Gisborne. For ease of analysis, it was assumed that the views of those on the Māori Electoral Roll would reflect those of Māori in the area.

The selected people were approached by telephone to organise face-to-face interviews, which were generally conducted by experienced women from local iwi. People interviewed were not known by the interviewers. The questionnaire was designed with structured quantitative and qualitative questions rather than more informal discussion to ensure no one was led by the bias of an interviewer. Only 25% of selected rural and 28% of selected urban residents completed an interview. This was mainly because a large number of people had no telephone listing (41% rural and 32% urban residents). Many were thought to be living in a house where the telephone was listed in another person's name or where there was no telephone. Some people had moved out of the area; others were away, unavailable, or unwilling to participate. The results presented here may be biased towards the views of those who were available and willing to be interviewed.

In all, 280 interviews were completed: 148 in five rural areas and 132 in the Gisborne urban area. The rural sample consisted of 68 General Electoral Roll and 80 Māori Roll people. Rural interviewing took place over 14 days in December 1999. In the Gisborne area, there

¹ Lisa Langer and Tim Barnard are Social Researchers with Forest Research in Christchurch and Rotorua.

Table 1: Influence of location on change of preference for industry growth.

	Proportion of people indicating first choice for expansion (%)			
	Rural		Urban	
	1994	1999/2000	1994	1999/2000
Industry				
Tourism	23	30	23	33
Farming	44	22	17	26
Industrial/Electronics*	7	13	26	14
Forestry	23	22	32	21
Fishing	3	13	2	6

* The term "industrial development" was used in 1994 and "electronics" in 1999/2000

were virtually equal numbers on the General and the Māori Rolls. Gisborne interviews were conducted over 14 days in March 2000. Weighting was applied across the whole sample to ensure that electoral roll and rural/urban distributions were equivalent to those in the 1996 Census (Statistics New Zealand 1998).

The typical survey respondent was on average 49 years old and had lived in the region for 36 years. Half were in full-time employment, and about a third received the pension or benefit. People were not asked their ethnicity or which iwi they were from.

How did forestry fare as a preferred industry?

Tourism was the industry selected by most people (32%) as the industry they would prefer to see developing in the region. This was followed by farming (25%), forestry (21%), electronics (14%), and fishing (9%). A significantly larger proportion of General Roll (37%) than Māori Roll people (25%) chose tourism as their first preference. People on the Māori Roll showed less consensus with fairly equal numbers of people selecting tourism, farming and forestry as their first preference.

When asked to rate the industry they least preferred 17% selected forestry, whereas the majority (43%) regarded electronics as their least-preferred industry. The remainder selected fishing (21%), tourism (11%), and farming (8%).

Industries were not defined so people may have interpreted them differently. This may have affected the level of support noted for any of the industry categories. The term "electronics" caused some confusion as people often interpreted it as part of the information technology, e-commerce, and computer-based environment. A few regarded electronics as the manufacture of electronic goods. It is possible that some felt it was outside their skill range and ability to be trained, and therefore their perceived ability to participate.

Why did a fifth prefer forestry?

Rural people who indicated that forestry was the industry they would prefer to see growing in the region often said that they would be better off because of greater job opportunities, or because they had a partner or family member working in forestry. This response was not unexpected in rural areas as there are few job opportunities. Urban people who favoured forestry

mentioned these personal benefits along with a number of other factors such as "It is a lasting investment"; "There is demand for wood". Although some urban people mentioned erosion control, it was not given as a common reason. This was unexpected, as it was the primary reason more than half of the region was

planted (Randolph Hambling, MAF, Gisborne pers. comm.), under schemes such as the East Coast Forestry Project (MAF 2000).

Why did some people not want the forest industry to grow?

Similar numbers of people ranked forestry as the industry they would least like to see grow in the region. Their impressions included:

- Lack of employment for locals.
- Negative impacts on the community (e.g. communities would decrease in size or die; schools would close down).
- Tree planting on good arable land.
- Problems relating to marijuana use by forestry employees and opportunities for growing under plantation trees.
- Causes environmental damage (sours the land; poisons the land; pollutes rivers; kills wildlife; pine forests will cause more erosion).
- Ownership by large incorporations taking profits out of the region.

Some of these responses are surprising as they are contrary to what are generally regarded as benefits of forestry.

Who was concerned if the forest industry were to expand in this area?

A similar proportion of urban (38%) and rural (46%) people expressed concern if forestry was to expand in the area, and a similar proportion of urban and rural (52-59%) people expressed no concern. More Māori Roll (49%) than General Roll people (35%) indicated concern, and more General Roll (63%) than Māori Roll (49%) people recorded no concern.

What concerns were expressed about forest industry expansion?

"Planting on good farmland" was the concern most frequently expressed by all except rural Māori Roll people who still listed it in their top three concerns. Urban people raised this issue more often than rural participants. Additional concerns mentioned most often by rural people were:

- Forestry does not create benefits for the area.
- Logging trucks affect road safety and road damage.
- Forestry has negative effects on the community.

The effect of logging trucks on road safety and road damage was mentioned as one of the top concerns by all groups other than urban Māori Roll people. The concern that forestry expansion would have negative effects on the community was more frequently expressed among rural than urban people. Urban Māori Roll people also were worried about the environmental effects of 'new' land afforestation (16%), processing industries (an additional 8%), and negative unspecified environmental impacts (a further 6%). Landscape values and the aesthetics of forestry expansion were rarely mentioned.

How has the preference for forestry and attitudes to forestry expansion changed since 1994?

Preference for forestry development decreased among urban people from 32% in 1994 to 21% in 1999/2000, but remained stable at 22-23% among rural people (Table 1). The decline in enthusiasm for forestry expansion by urban people over the previous 6 years meant that the 1999/2000 level of support was now similar to that of rural people. This decline was accompanied by increased interest in tourism and farming.

In 1994 nearly three quarters (72%) of the people surveyed considered that there were problems associated with forestry development, showing most concern about possible future effects. At this time the major part of the forest estate would have been less than 5 years old, with only small areas of mature forest being harvested (MAF 2001). Six years later less than half of the respondents (41%) expressed concern about forestry expansion in the area. This suggests a growing acceptance of the forestry industry.

The initial impact of forestry on the largely dominant farming community of the East Coast region must have been profound. In 1994 open grazed grassland was being replaced with blocks of exotic trees so people were aware of the change in land use. When considered with the social and economic changes taking place at the same time in rural areas (Fairweather *et al.* 2000) it is not surprising that forestry expansion should be an unpopular land use. Time, familiarity and an awareness of forestry benefits may have softened attitudes to the industry, although as indicated earlier, there are still some deep-seated concerns about the impact of forestry.

What changes did people want to see and what developments did they think would most likely benefit the region in the future?

People from the four groups (General and Māori Rolls and rural and urban areas) all mentioned their desire to see the creation of more employment opportunities in the future. However, although both urban General Roll and urban Māori Roll people wanted more work, skills, leisure etc. for youth, rural General Roll people appeared to be more interested in improvement of education, public services and roading. Rural Māori Roll people also mentioned improvement in education, public services and greater iwi/local control as frequently as youth activities. Urban people mentioned the

development of business and industry more frequently than rural people.

Again tourism was mentioned most consistently as the development which was most likely to benefit the region in the future. Urban General Roll people were more focused on business and industry development than people in other groups. Urban people on both Rolls mentioned processing and factories more frequently than their rural counterparts.

What do we do now?

We now know more about the attitudes people in the Gisborne/East Coast community have to plantation forestry. We may consider that some views on environmental, social and economic aspects of forestry are misinformed or unsubstantiated. Consequently it may be tempting to dismiss their views as such. However, they are strongly held beliefs and must be taken seriously. There is a clear need for more effort to be made to inform local communities about the environmental realities of present day sustainable forest management practices.

The social acceptance of forestry is vitally important for the long-term sustainability of the industry, particularly as the Montreal Process and forest certification is looking hard at the rights of Māori and social effects of plantation forestry. To this end, Forest Research is in dialogue with iwi in the Gisborne/East Coast region about its forestry future, focusing on cultural values and options which allow more opportunities for community development. These may include the establishment of indigenous species for cultural uses (such as woodcarving), harvesting of non-timber forest products, and tourism.

Acknowledgements

We acknowledge the efforts of the survey team, those who were interviewed, data analysis provided by Craig Tomlinson, John Fairweather and Nicola Robertson (Lincoln University), survey design by Barry Smith. Funding was provided by FRST.

References

- Fairweather, J.R.; Langer, E.R.; McNab, K.; Robertson, N.; Tomlinson, C.; Smith, B. 2001: Community visions, values and preferences for development on the Gisborne/East Coast. *Sustainable Forest Management Technical Report No. 1*, Forest Research, Rotorua.
- Fairweather, J.R.; Mayell, P.J.; Swaffield, S.R. 2000: A Comparison of the employment generated by forestry and agriculture in New Zealand. *AERU Research Report No. 246*, Lincoln University.
- MAF. 2000: Guidelines for applicants to the East Coast Forestry Project. Ministry of Agriculture and Forestry, April 2000.
- MAF. 2001: A National Exotic Forest Description as at 1 April 2001. Edition 18. Ministry of Agriculture and Forestry, Wellington.
- Statistics New Zealand. 1998: Census of Population and Dwellings, Gisborne District Overview. Statistics New Zealand, Wellington.
- Wall, M.; Cocklin, C. 1996: Attitudes towards forestry in the East Coast region. *New Zealand Journal of Forestry* 41(3): 21-27.