

CONDITIONS FOR BUSINESS CLUSTER DEVELOPMENT

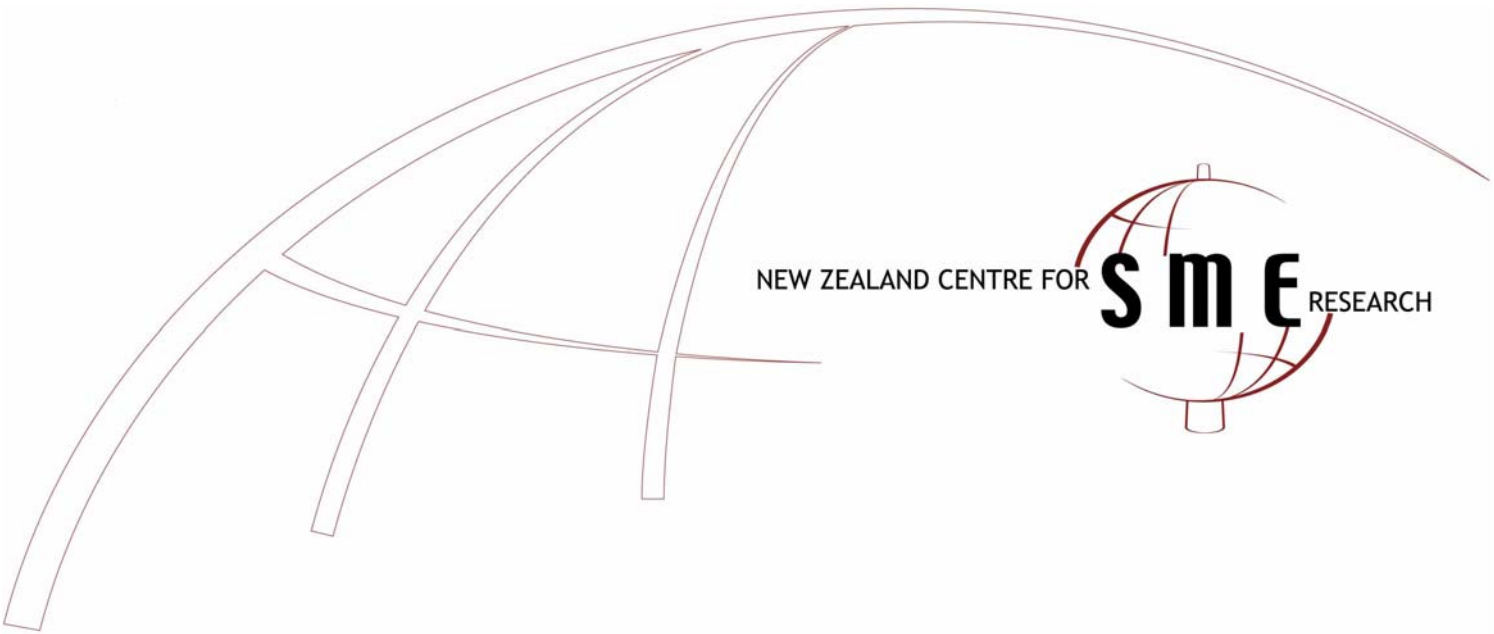
A PROFILE OF FOUR TIMBER INDUSTRY PROJECTS

by Martin Perry

New Zealand Centre for Small & Medium Enterprise Research

Massey University

June 2005



NEW ZEALAND CENTRE FOR

S m E RESEARCH



New Zealand Centre for SME Research
Massey University
Private Box 756
Wellington
New Zealand

Tel + 64 4 8015799

Fax +64 4 8020290

<http://sme-centre.massey.ac.nz>

ISBN 09582632-3-X

Contents

Abstract	1
Introduction	3
Cluster groups in New Zealand	5
Survey design and scope	7
The clusters	11
Southern Wood Council	12
Northland Wood Processing	15
Wood Hawke's Bay	17
East Coast Wood	18
Cluster characteristics in common	19
Cluster differences	22
Southern Wood Council	22
Northland Wood Processing	25
Wood Hawke's Bay	27
East Coast Wood	30
Discussion of Cluster Differences	33
Southern Wood Council as a balanced cluster	33
Northland Wood Processing as an unbalanced cluster	35
Hawke's Bay and East Coast as unconnected clusters	37
Policy implications	39
Conclusions	41
References	43
Appendix 1 – Survey results	44
Cluster support and participant profile	44
Motive for participation	46
Preferred cluster attributes	47
Comparison of cluster and industry association	50

Business clusters have been viewed as a substantial source of competitive advantage. This has encouraged many efforts to promote enterprise development through support to business cluster groups. Four such cluster initiatives based in the New Zealand timber industry are examined. The forest products industry was chosen for the study as this industry has produced cluster projects in different regions and because firms in this industry have a range of network opportunities as well as the cluster group. This gives opportunity to assess the particular significance of clusters versus other forms of collective association. Two of the four groups are shown to have achieved some impact on business development and have sustained the support of enterprise owners. Two groups have failed to become significant and have lost participation. Participants in each cluster project were interviewed using structured and semi structured questions to determine the reason for these different outcomes. The attributes of the more successful clusters identified related to: (i) the mix of enterprise types; (ii) the expected outcomes from participation; (iii) the business relationships between cluster participants. These characteristics lead to the development of two models of enterprise activity conducive to cluster formation. Each model has different implications for the potential impact of a cluster on enterprise growth. These findings raise a number of challenges for the advocacy of business clusters as a tool for enhancing business competitiveness.

Introduction

This report discusses findings from interviews conducted with representatives of organisations associated with four business cluster groups. These groups are Northland Wood Processing, East Coast Wood, Wood Hawke's Bay and the Southern Wood Council (formerly known as the Otago-Southland Forest Products Group). All these groups are linked to the timber industry but the precise range of activity encompassed is one source of difference between them. Northland Wood Processing is dominated by sawmilling and timber 'remanufacture' while the Southern Wood Council includes sawmilling, some timber remanufacturing and forest management. In terms of the number of associated firms, East Coast Wood and Wood Hawke's Bay are dominated by timber users rather than timber processors although each has representation from an integrated forestry company. The extent to which supporting agencies such as local authorities, port companies and training establishments participate in the cluster groups is another source of variation.

The representatives interviewed are linked to organisations that at some stage have indicated an interest in, or at least willingness, to be identified as part of the cluster group. Organisations were identified through membership lists supplied by the cluster facilitator or published on a website promoting the cluster. The actual significance of cluster 'membership' is a further source of difference between the groups. Some organisations have made deliberate decisions to join the group with which they are linked. Others may have been co-opted through the recruitment efforts of a cluster facilitator without an intention of being an active participant. As well, because not all groups seek membership fees or impose an ongoing test of a firm's support for the cluster, records are slow to change. Some firms that took part in the study claim to no longer support their group. For these reasons, the study is not simply a survey of cluster members. It is based on the responses of representatives whose organisations have varied in their past and existing interest and involvement in the cluster. At the same time, no effort was made to encompass organisations that might have been cluster supporters but have never been associated with it, either through their own choice or a decision of cluster members not to seek their participation.

The study is based on timber industry clusters for two reasons. First, this sector gives rise to a comparatively large number of industry associations as well as cluster groups. Second, cluster groups are to be found in different regions and each regional group tends to differ in its membership profile and activity. The first characteristic is helpful to the study's objective of discovering how participants perceive the relative roles and potential outcomes of clusters and other forms of network group. The number and variety of timber industry groups was taken to indicate that even if a firm is not currently a member of an industry association they would be able to offer some informed assessment of the features of alternative groups. The second characteristic was sought in order to help identify the features of an effective cluster group.

This report provides a summary of the interview findings. A total of 50 interviews were completed with cluster-linked organisations in addition to interviews with the facilitators of the clusters. This represents around 65

percent of all those who might have been approached for an interview. Six organisations approached to take part in the study declined to assist.

Interviews prioritised businesses rather than supporting agencies and firms that were known to have had most connection with the cluster. New participants, businesses with a recent change in ownership or a change in relevant personnel were the most likely to be overlooked as well as those that have never engaged with the cluster. On this basis, a good representation of the organisations that have been most associated with the clusters is claimed.

The report commences with a brief comment on the nature of business cluster groups and how they have emerged in New Zealand. The survey design and scope is then explained followed by a description of the four projects included in the study. The survey findings are summarised first in terms of what the cluster groups shared in common and then the distinctive aspects of each group are highlighted.

Cluster groups in New Zealand

The four cluster groups covered in this study have links to the Cluster Development Programme (CDP) funded by New Zealand Trade & Enterprise (NZTE). That programme has been significant in encouraging other agencies to think about establishing cluster groups and through the financial support it has provided for the employment of (part time) facilitators. Each of the four groups has had such a facilitator but the extent to which this funding or the larger influence of the CDP has been important to the group's existence varies. Nonetheless, as each group has had to satisfy eligibility for CDP funding and been subject to its monitoring it is relevant to note some features of the programme.

The CDP has been guided by the following definition of a cluster group:

Clusters are groups of companies and related organisations that collaborate to grow their business.

In comparison with some conceptions of clustering, this definition puts the stress on inter-organisation collaboration rather than the location of collaborating parties relative to each other. It provides further guidance by suggesting what impacts are expected from collaboration.

Using this collaborative team approach allows businesses, regions and interest groups to develop greater speed, quality, innovation and critical mass. This assists in resolving practical issues like training, infrastructure and procurement.

In conjunction with the 2003-04 CDP funding round, four types of projects qualifying as clusters were specified as illustrative of eligible forms of collaboration.

- *Commercial clusters* of small groups of firms that form a hard business network or strategic alliance. Their joint activity might be directed toward developing an individual market, improving their supply chain or addressing other shared business issues. This form of cluster might comprise business organisations only.
- *Special interest clusters* developed and managed by Māori, Pacific Peoples or women and directed primarily at advancing development opportunities for their affiliated population.
- *Regional clusters* seek to enhance the economic specialisations of a locality by helping to build a supportive environment as well as by developing linkages between participating firms.
- *National clusters* may be based on any of the previous three types, with membership opened nationally to provide a critical mass, or they might address whole industry issues and include the participation of industry associations.

As indicated by this range of eligible projects, the CDP has sought to be inclusive rather than selective in its support. This is further underlined by the absence of explicit criteria relating to the organisational form of the cluster, the number of participants, degree of participant involvement or activity to be pursued. Consequently, a significant variation can occur in the extent to which the projects supported are an aspiration as compared with being a group that has already made progress in gathering support from its intended membership.

Since the CDP pilot programme in 2001/02, priority has shifted to groups with substantial economic resource. A minimum combined revenue generation of \$30 million by businesses linked to the cluster has become a rough benchmark for eligibility. This was developed mainly to exclude projects based on craft-scale enterprises with limited scope for generating business growth. Projects linked to the forestry sector were among the first projects supported. This reflects the tendency for activity to cluster around the availability of forestry resource, public agency interest in working with the sector to promote new investment and the interest of timber companies in addressing shared interests. The four projects included in the study typically include at least one large integrated forestry company that alone would qualify as a cluster were the income test applied. Even without such an organisation, the clusters would retain eligibility given the perception of the forestry sector as having significant growth potential.

Outside of the four projects covered in the study, Forestry Wairarapa has also been supported by the CDP. This group has six members, excluding the regional agency that provides administrative support, all of whom are forest managers or small forest owners. For these reasons it was of less research interest than larger groups with diversified membership. It came about as a result of a regional council effort to encourage all parts of the forest industry to help promote the area to new investors. That aim was unsuccessful but the continuing group has formalised its organisation structure and sustained activity more than most other cluster groups.

Survey design and scope

Interest in business clusters arises frequently from their claimed ability to strengthen individual firm competitiveness through facilitating inter firm cooperation. For example, the influential cluster advocate and management academic Michael Porter has claimed that for individual businesses operating within a cluster facilitates 'rapid best practice improvement' and proliferates opportunities for 'distinctive competitive positions' (Porter, 2000, p. 265). Further, he suggests that clusters can optimise conditions for business growth.

A concentration of visible rivals encourages the search for ways of competing that are not head on. Niche opportunities overlooked by others can reveal themselves. Ready access to suppliers and partners provides flexibility to configure the value chain in a variety of ways. A more positive-sum form of competition can result when customer choice is widened and different customers are served most efficiently (Porter, 2000, pp.265-6).

This conception of cluster advantage is of uncertain relevance to export orientated clusters. New Zealand timber producers supply international more than domestic markets and overseas New Zealand product typically accounts for a small share of the market. In this sense, while forestry clusters comprise independent companies they are not necessarily involved in intense competition with each other. Rather they face a common challenge in locating and sustaining distant markets. This may suggest scope for cooperation. Equally possible, the effort required to market overseas may also indicate that firms will prefer to protect their individual markets and be reluctant to cooperate with their neighbours.

These considerations apply less to timber users such as furniture makers and joinery firms that are important parts of some clusters. Such firms may compete in the local market and be affected by the processes described by Porter. Nonetheless, even among firms with a domestic market focus it is not clear that a virtuous combination of cooperation and competition is attainable.

Critics of Porter's cluster advocacy argue that his claims are based on a definition of clusters that is too elastic to provide a basis for making any rigorous claims about their potential importance (Martin & Sunley, 2003). The concept needs to be nailed down in a way that sets specific parameters for distinguishing a cluster from lesser forms of concentration. Without any precise rules for establishing when a cluster exists, it has been possible pick and mix research evidence too freely. Further, even though there is an association between some high growth industries and a tendency for geographical concentration, this is not a basis for claiming that concentration is a cause of high growth. The enthusiasm for clusters has jumped too quickly from a few particular experiences to a belief in the universal capacity for concentration to generate growth.

This study started with these doubts about the value of clusters in mind. Consequently rather than evaluating the projects against an idealised version of how clusters ought to develop, the objective was to discover what participants judged to be the benefit of the group and what unintended or unwelcome outcomes had resulted as well. At the same time, it was envisaged that the particular character of the cluster participants in terms of the distribution of firm sizes, extent of common

business interests and markets, would influence how the project would be received and how it would progress.

Vagueness about the geographic scale of a cluster raises the questions of how, if at all, they are to be distinguished from participation in a national industry association. The CDP sees both as suitable groups for funding and this is reflected, among other decisions, in its support to 'Bodyguard'. This project was promoted by the Pine Manufacturers Association and involves timber companies located in different parts of the country that are members of the national association and involved in developing the Bodyguard brand. Nonetheless there are at least two reasons to distinguish between industry associations and cluster projects. First, national industry associations are typically longer established than localised cluster projects. The promotion of a new set of groups presumably assumes that there are gaps in the activity of these longer established groups or that more firms may gain the benefit of belonging to some form of collective association when the form of those organisations is diversified. Second, it seems likely to assume that localised groups are appropriate for some forms of joint activity and national groups for other activities. In particular, while much of the advocacy of clusters assumes scope to influence business competitiveness, arguably this potential is greatest for national associations. National groups have capacity to influence government industry regulation, address international trade issues and to extend business networking to a wider range of firms than where interaction is limited to a local area.

The timber industry was selected as a good starting point for exploring the distinctiveness of clusters from national industry associations. The sector has a wide range of associations, separated by their activity focus and representation of different scales of enterprise. The history of these associations includes a degree of competitiveness for members and dispute over industry development options (Perry, 2001). New groups have emerged that have attracted membership at the expense of longer established associations. Many key development issues for the industry, such as international market access and the Kyoto Protocol suggest the importance of national coordination among businesses. On the other hand, relations with regional authorities can also be important with respect to resource consent, local taxes and investment in infrastructure. With this context, the study was designed to investigate how respondents saw the relative roles of local cluster groups and industry associations. Even so, within individual regions there may be few enterprises with a common perspective on industry development issues.

To capture differences in the perception and experience of clusters, the aim was to conduct interviews with representatives of as many organisations linked to each cluster as possible. Organisations were identified typically from a cluster membership list. As explained in the introduction, some caution is needed in referring to these participants as cluster members in the sense of being active supporters of the project. As levels of attachment to the cluster were expected to vary, no attempt was made to broaden the investigation to organisations outside the cluster that were engaged in similar activities. In two cases, there would have been few firms in this category to approach. In the other cases, the cluster groups had low membership requirements that enabled firms with low attachment to remain on a current membership list. As one such respondent observed, being excluded from a member list would require more effort than remaining included.

A risk to the study was that active supporters of the projects would be disproportionately inclined to participate. This did not occur. Of 56 organisations approached for an interview, 50 agreed to participate. In three cases, all arising in the relation to the same cluster, people declined stating that they had no interest in the project. In two other cases, the timing of the study was the reason for declining to participate and in the final case no explanation was given.

Interviews were conducted using a standardised list of questions. The interviews were conducted through face to face meetings (except in two cases where it was necessary to use a telephone interview or postal response) with individual respondents. This format was designed to secure responses to closed option questions while permitting discussion around the questions where respondents were willing to extend the time required for the interview. The questions were designed to be answered by representatives of individual firms. Where the respondent was an education, training or local authority agency (as occurs for four respondents linked to two of the clusters), closed questions were replaced by open-ended questions relevant to the particular organisation's involvement. Consequently, tabulated findings can be based on less than 50 responses.

The questions were structured around six main issues.

- The level of support being given the cluster project, whether the firm had membership of an industry association and, where relevant, to which was most importance attached.
- The reasons for their association with the cluster and, where relevant, how far these reasons differed from those influencing membership of an industry association.
- The preferred organisational attributes of the cluster with respect to their own influence on cluster activity and the type of organisations participating in the cluster. Where relevant, comparison with the preferred characteristics of an industry association they had or might join.
- A comparison of the roles and activities that it was considered appropriate for the cluster to address versus an industry association and judgement as to whether government support was best directed at clusters or industry associations.
- The extent to which the perceived availability of opportunities to join industry networks was judged appropriate and the perceived significance of these opportunities to business competitiveness.
- Outcomes of their association with the cluster and, where relevant, from an industry association membership.

In addition, business demographic characteristics were collected to distinguish respondent businesses according to their employment size, participation in exporting, years established and extent to which they were dependent on a large number of customers and suppliers as compared with having a few key external linkages.

As well as cluster participants, the facilitator of each cluster group was interviewed. In the case of East Coast Wood, for reasons identified in the discussion of the individual clusters, this involved the former facilitator rather than the current one. In each case, these discussions were used to

gather information about the development of the cluster project as well as to obtain guidance in carrying out the investigation with the particular group.

The clusters

The individual cluster projects differ in the organisational form that they take, as revealed through a summary of some features of each of the groups (Table 1). All projects are of recent origin but differ in their progress into a significant initiative, as evidenced by a high level of participant support and an agreed set of activities. If allowance is made for the different opportunities existing, a full judgement on which group has achieved most is more complicated than one based on the outcomes to date. The relative development of the groups needs to be put in the context of the challenges and opportunities that each has faced. This is explained starting with the group that has attained most coherence.

Table 1: Profile of the cluster projects

	SWC	NWP	WHB	ECW
Year started	2001	2002	2001	2002
Membership	21 fee paying members	14 fee paying members	29 members identified on a 2004 website directory	19 organisations responding to a membership capability survey
Share of potential membership	High - 2 sawmills have declined to join although they do support some cluster activity	High - 2 large sawmills absent & 3 small mills, all located away from other members	Around 50% - first website directory identified over 60 members	Around 50-75% - over 30 organisations canvassed to join
Sector representation	Forest owners, sawmillers & timber processors	Sawmillers & timber processors	Sawmillers, timber processors, furniture, joinery & design	Sawmillers, timber processors, furniture, joinery
Stakeholder participation	Port companies Local authorities Government ministry		Port company gives financial sponsorship	Education & training
Organisational form	Incorporated Society	Linked to Enterprise Northland	Linked to Hawke's Bay Economic Development Agency	Linked to Gisborne City Economic Development Unit
Current activity	Cluster meetings Annual Forest Industries Profile Forest open days & training support Media strategy Energy efficiency Economic impact assessment	Cluster meetings 'Logs to Jobs Tour' Annual survey of member activity	Facilitator provides business support Cluster linked to a furniture design incubator Seminars New investment investigation	'Uncaged' furniture brand development Training provision

Southern Wood Council

The Southern Wood Council is the only timber industry cluster with participation from forest owners and sawmillers. In other regions, forest owners have either seen little reason to join the cluster or cluster participants have not sought their participation. Integrated forest companies that own forest and sawmilling capacity are represented in other clusters but typically through a timber processing division rather than the organisation as a whole. The extent of joint activity is a further distinction of the Southern Wood Council.

In 2004, the Southern Wood Council had agreed to projects to which members planned to commit significant resources over the next five years. None of the other clusters examined has committed to a forward programme of activity. The involvement of stakeholder representatives as associate members is a further indicator of the group's coherence and potential for supporting important activity. This brings the region's port companies, local authorities, New Zealand Trade & Enterprise and the Ministry of Agriculture & Forestry into the cluster. Moreover, membership of the Southern Wood Council has grown while other groups have tended to decline in participation. The group was established originally in 2001 as the Otago Southland Forest Products Group. It became the Southern Wood Council in October 2004 with the expansion of participation to all the major forest owners within the region and the further development of group activity.

The original business members took the lead in setting up the group driven by two concerns.

The first concern was to produce an accurate assessment of the region's forest and processing resources. An official estimate of the harvest potential existed from the National Exotic Forest Description (NEFD). In the late 1990s, local government agencies in Otago and Southland used those estimates to promote the region to inward investors. This was a concern to the established industry as they judged the NEFD gave a misleading impression of the extent of wood available for processing that was beyond the capacity of existing firms to handle. Wood flow projections depend on estimates of the extent and quality of small woodlots as well as easier to measure large forest reserves. Subsequently, a Port Otago Strategy Study (August, 2000) released a set of wood flow projections that were more in line with the estimates of the region's existing large timber companies. Getting credible and accurate woodflow and processing capacity data into the public domain became a priority for the original members of the Southern Wood Council and their first group project.

Preparing the Otago and Southland Forest Industry Profile was a significant first project. Although companies probably already had an estimate of each other's forest and processing resources, the Profile relied on those involved sharing actual company information. This implied a degree of trust in the use that others would make of the information shared. One outcome was consideration as to which organisations were appropriate to be in the group, particularly to restrict involvement of those without information to share. The project was also significant in that an important document was produced that subsequently led to the Ministry of Agriculture & Forestry and local government agencies to revise their projections in line with the group's estimates. The Profile has now become an annual publication.

A perceived need to be more assertive in getting its concerns addressed by national industry associations was a second original motivation. This motivation was linked to a perception common across the New Zealand industry that the interests of large corporate forestry companies have had too much influence over national industry associations. This concern has particular consequence in Otago Southland because corporate groups have no investment in the region's industry. As well as the absence of corporate dominance, the region differs in the extent to which forest owners either own or have close working relations with processing mills in the region. Elsewhere in New Zealand, independent forest owners and timber processors have not developed similar integration. This is reflected in separate national industry groups. In the past, such groups have sometimes promoted sectional interests rather than working to an industry-wide agenda. This creates a legacy in which integrated, independent organisations can be dissatisfied with national representation. Wood characteristics are a further influence bringing the southern wood industry together. As a consequence of the region's climate, wood qualities tend to differ from that grown elsewhere. This gives timber producers a specific market focus based on wood that scores well in appearance, grade lumber and for decorative veneers.

The extent to which a local group was viewed as an alternative to or a way of improving links to national associations varies but it has given added rationale for supporting its establishment. Through its collective voice, the Southern Wood Council helps members register their concern with national bodies. As a representative of the region's key players, the group is also seen as a way of encouraging national initiatives to be introduced first in the region, such as new training schemes.

Another offshoot of the degree of regional distinctiveness was the possibility of developing a regional brand. Research into the potential for a brand to build on the region's distinctive timber characteristics was supported. Subsequent investigation raised doubts on the value of this, although individual companies have been helped to substantiate claims about the distinctiveness of their product. Development of the region's wood industry is not independent of New Zealand's success in building new overseas markets. In this context, a regional brand might be seen to conflict with efforts to promote a national reputation. It also became apparent that considerable investment might be needed in scientific evidence to support any specific claims attached to a brand.

Having a core membership from similar sized organisations assisted the formation of the Southern Wood Council. Jointly the six major forest owners own or manage just over half of the regional forest resource (around 124,000 of 242,000 hectares), with the smallest of these still accounting for over 5 percent of the total. Among the 6 largest sawmills, the smallest has around 30 percent of the production volume of the largest, making it still a comparatively significant operation. The larger sawmills tend to have less forest ownership than the smaller mills, underscoring how the region is dominated by a relatively small group of comparably sized companies. This has made it comparatively easy to identify areas of common interest and promoted efficient decision making.

Southern Wood Council meetings, which are held bi-monthly for a whole day, are attended by the senior executives of member companies. Their commitment is retained as long as the meetings bring together a small group of decision makers. Small companies and the many hundreds of

landowners with small forest holdings have not participated directly in Southern Wood Council. On the other hand, many of the projects promoted by Southern Wood Council stand to benefit all companies and some activities are made open to non members, such as the energy audits and seminars. Similarly information is provided for the compilation of the annual Profile by companies that are not Southern Wood Council members but who see value in supporting an authoritative documentation of the region's resource.

Outside of the Otago & Southland Forest Industries Profile, significant progress has been made in seven other areas of activity:

- *Improving energy efficiencies.* With the assistance from the national Energy Efficiency and Conservation Authority's Emprove programme, seven saw mills plus a wood veneering operation completed detailed energy audits that identified savings estimated as over NZ\$535,000 that could be achieved over one to three years. Addressing the issue as a group helped to gain the Emprove assistance and to share learning across the individual sites.
- *Forestry open days.* An annual programme rotating between Otago and Southland each year is being run for school students, careers advisers and teachers to demonstrate and discuss the wide variety of exciting options open to students in forestry, the qualifications and training available and career paths. Southern Wood Council also participates in careers expos held within the region and forestry awards programmes.
- *Forestry and wood products training.* A new cadetship scheme, initiated by Southern Wood Council and supported by the Forest Industry Training Council (FITEC), is scheduled to commence in early 2005. If successful, FITEC has indicated that the two-year programme will be introduced in other regions.
- *Economic Impact Assessment.* An Economic Impact Assessment was commissioned in late 2004 from independent economic consultants to provide detailed data on the contribution being made by the forest products industry to the regional and national economy. The assessment is seen as providing valuable data to help the industry establish its importance when negotiating with regional and national agencies.
- *Regional forestry induction tours.* Tours are coordinated for new councillors, council planning staff and MPs of forests in both Otago and Southland to discuss a wide range of issues relating to the forest products industry.
- *Improved community communication.* Attracting people to work in the industry is seen to be made difficult by the tendency of the news media to report accidents, environmental conflicts and other negative stories without coverage of positive developments. As part of a wider communications planning initiative for the lower South Island, a journalism award was introduced by Southern Wood Council to encourage more extensive media coverage of the forestry and wood products industry within the region.
- *Drug & Alcohol Memorandum.* A charter agreement to implement an Alcohol and Drug Free Workplace Policy in the lower South island was developed in 2003. This agreement covers all aspects of

the industry including, silviculture, harvesting, and wood processing operations.

Southern Wood Council is established as an incorporated society and has annual membership fees that vary from \$1500 for full members to NZ\$350 for associate members. Project activity is funded separately by participants, supplemented by separate public agency support for eligible projects where the group has successfully requested support. Individual companies may provide further support by providing staff time to work on individual projects.

The evolution from the Otago Southland Forest Products Group to the Southern Wood Council reflects further consolidation of the project. As well as the facilitator who has been with the group from the outset providing administrative support, two specialist support staff have been added to the group's resources. Working on a part time basis, one focuses on skills and training projects and the other on communication. With success in recruiting all of the region's main forest owners in the group, Southern Wood Council looks certain to play an ongoing role in the region's development.

Northland Wood Processing

Northland Wood Processing started with six companies that worked in association with Enterprise Northland, the region's economic development agency, to attract CDP funding for a cluster facilitator. That funding was secured in 2002. Membership peaked at 14 in July 2004. Subsequently, one company relocated and one ceased to participate.

The group has retained a focus on wood processing with a preference to exclude forest owners or managers. Representation of wood processing firms located in and around Whangarei, the region's main centre, is high. In the region's Far North there are two large wood processing plants that have not participated in the group, with a few small firms located away from Whangarei also not involved.

This group has a formal and informal component. The formal component is the group administered by its CDP-supported facilitator. That group meets on a regular basis although this is dependent on the facilitator's initiative and support from Enterprise Northland. The group does not have a separate legal entity being administratively part of Enterprise Northland. Two 'membership rules' have been agreed, namely:

- that the primary purpose of the group is to represent businesses engaged in wood processing;
- existing members accept new applicants on the basis of a majority vote.

In addition, there is a modest annual membership fee of \$200 and a joining fee of \$350.

The formal side of the group has had a number of outcomes. There is cooperation in an annual survey that records employment, turnover and export activity and expected growth over the next year. In 2003, the survey obtained responses from 10 of the 14 members. A 'logs to job tour' was organised in 2003 to promote the industry to government officials, career advisers, and other parties that were seen to have a role in facilitating the

industry's expansion. This initiative included a significant commitment of time and coordination among member firms included on the tour. Discussions on local development issues have occurred, such as dry goods storage facilities at the region's port. Representations have been made to the regional council on some issues, such as the fees charged for dumping waste wood.

These outcomes are of significance but they have not led to an ongoing programme of activity. Without the part time facilitator to coordinate cluster meetings, some uncertainty exists as to how long the formal presence of the group would survive. A Forestry Development Group coordinated by Enterprise Northland exists in addition to the cluster group. That group includes a wider range of forest industry representatives than the cluster. It has worked with the regional council to prepare both a road transport and forest industries strategies. As well, the region's polytechnic has obtained government support for activity to promote training in the forestry industry. Consequently, rather than being a key sector group, the cluster is only one forum through which the region's industry can address collective issues. Compared with the Southern Wood Council, this increases the challenge in finding a role for the cluster.

In addition, the firms that have dominated the group have seen little value in it assisting marketing in the way that Southern Wood Council used the group to explore the possibility of a regional brand. Like the far south, timber grown in Northland has distinctive qualities that can lead to claims of it being the most suited for structural grade uses. This possibility has not been taken up although one of the original participants suggested it might be worth investigation. No role is seen for the cluster in developing collective marketing resources, even as far as a group website being developed.

The other side of the cluster is partly reflected in the facilitator's observation that once the formal agenda has been completed, cluster meetings are extended by informal discussions. Gathering intelligence about other businesses, discussing existing business relationships and new opportunities sustain the cluster more than formal projects. As shown in the survey evidence, the Northland group is distinguished by the importance of trading relationships between cluster participants. On a day to day basis, these relationships involve managers and production staff rather than the business owners who participate in the cluster meetings.

Until recently, the region's wood processing infrastructure has been comparatively undeveloped. Most mills and secondary processing operations remain small in comparison with those represented in the Southern Wood Council, but investment has been expanding rapidly since the late 1990s. The first cluster member survey was undertaken in 1998 among 6 companies. It identified a combined annual turnover of around \$2 million. The survey completed in 2004 reported a combined turnover of over \$142 among 14 companies. Two firms account for much of the growth. Even so, the context of the cluster is an industry that has been expanding to match the growing availability of timber to process. Firms have gained from understanding the investment intentions of each other. This is especially so as the region has one large independent sawmill whose investment can influence the opportunities available for smaller mills. (The cluster's other big firm is a relatively self contained operation producing laminated veneer.) A degree of coordination has developed among firms that rely on others for processes that they do not themselves

wish to invest in. As well, one cluster participant is an exporter of wood chips for use in paper manufacture. It sources chips from throughout New Zealand. These need to conform to particular specifications and the company joined the group partly to help secure a reliable supply of chips from other cluster participants.

Wood Hawke's Bay

This group came about as a consequence of a planning exercise coordinated by the region's economic development agency, then known as Vision 2020. That exercise sought to identify the region's main export activities, of which one was the forestry sector. Recognising its export significance, the Port of Napier provided an annual grant of \$100,000 for three years starting in 2002. This support envisaged a self supporting cluster would emerge with income from a royalty on new market opportunities that it brokered. In 2002, the project gained the additional financial support of a grant from the CDP.

From the outset, the project was envisaged as encompassing a diverse range of participants. Broadly any activity with a link to timber processing was seen as eligible, including forest owners, valuers and consultants, saw millers, timber manufacturers, furniture makers and designers. Such broad participation responded to the region's absence of any single strong concentration of activity beyond forest ownership. The region has one integrated wood processing plant. This is a Japanese owned plant that produces pulp for newsprint manufacture and sawn lumber for export. In 2003, there were only two other mills that produced over 5,000m³ and other timber processing activities tend to be small scale or specialised, such as an exporter of bark for use as a growing media for ornamental flowers. The furniture manufacturing, joinery and design sector is the most numerous but with firms differentiated in their scale and focus of activity. There are two medium sized furniture manufacturers, one specialised on domestic furniture the other on school and other institutional markets. Design is represented principally through a single workshop, although this includes one of the country's leading furniture designers, and an associated incubator for new design graduates.

The present cluster is maintained by a more fragmented representation of the region's timber industry than originally intended. Forest owners and management services are no longer represented and participation from other areas has declined, although a relatively large number of firms continue to be identified as cluster participants compared with other cluster groups. In the early days of the cluster, on site visits to member workplaces were arranged but this interaction has lapsed. There is no formal cluster association or membership process and no ongoing cluster meetings. The cluster retains importance through the presence of a facilitator who operates with administrative support from the region's economic development agency. Occasional meetings on topics of potential interest are held, typically arising from requests by outside parties to make a presentation. As well as being a source of one-to-one business advice, the facilitator seeks to bring businesses together that have a common need or interest. For example, several firms identified that their export potential would be enhanced with the addition of a particular process technology. The facilitator is working with these firms to investigate the feasibility of a joint venture to invest in the technology. The facilitator is also instrumental in gaining support for the design workshop and incubator from other cluster

members, particularly in encouraging links between design expertise and furniture makers.

East Coast Wood

To an even greater extent than Hawke's Bay, the East Coast's sawmill capacity is low proportional to the wood harvest. The region's single large sawmill is an integrated plant operating under Japanese ownership focussed entirely on export of lumber to Japan. There is one other export sawmill. After a period of ownership instability it was purchased out of receivership by another foreign-owned company that has large forest holdings in the region. Otherwise sawmilling is confined to three locally owned plants with limited operations in Gisborne and two larger plants on the region's southern boundary that operate with more affinity to Hawke's Bay rather than the East Coast. (The firms are actually recorded as being members of both cluster groups). Potential cluster membership is further depleted by the longer established presence of the East Coast Forest Industries Group (ECFIG). That group is a collective association of the region's main forest owners, including those with sawmilling operations, and has existed in some form since 1997. It aims to enhance the region's forest industry infrastructure and workforce. In 2002, it became a formally incorporated society. Out of around 150,000 hectares of plantation forestry in the East Coast, ECFIG members own or manage over 120,000 giving it an influential role within the industry.

As in Northland, the presence of another regional industry group including large forest owners has reduced the activity to be pursued by a separate cluster group. ECFIG has, for example, influenced the design of the region's road funding strategy with the aim of supporting future and existing log exports. It has encouraged owners to coordinate harvest planning, made representations to local government on a range of issues, established an ongoing forum to help align local body decisions with industry concerns and developed initiatives to encourage young people to consider employment in the forestry industry. An ECFIG representative did attend one meeting of the cluster group but it was concluded that it had little to gain from ongoing participation in the cluster. The scale of business operation represented in the cluster does not give rise to the same concerns and does not provide a significant market for the timber produced by ECFIG members.

East Coast Wood first came together in late 2002 after a CDP grant enabled the employment of a part time facilitator for the group. That application was a product of support from Gisborne City Council's economic development unit and the efforts of a local forest industry consultant to gather interest among potential members. In the absence of core forest industry activity to support the cluster, the membership was canvassed from any activity linked to timber including furniture making, joinery and construction. Positively, this was seen as an opportunity to encourage the integration of the timber and building industries. The ambition was to facilitate the growth of added value timber related activity in the region by: providing a networking opportunity for participants, gathering and disseminating industry and market intelligence, encouraging working alliances between cluster businesses and other cooperation that would help enhance industry infrastructure.

East Coast Wood developed an information network including a website and a regular newsletter reporting issues affecting the wood industry

generally as well as matters specific to the cluster. The cluster could further claim the most detailed industry directory profiling the business capabilities of its participants, although this received information from only around half of all the businesses canvassed to join the cluster. Another distinction was the early identification of two collective projects. One of these involved an agreement between Tairāwhiti Polytechnic and a local business (both cluster supporters) to provide work-based teaching linked to a new diploma in wood processing. The other project involved investigation of a new business to export garden furniture to Europe. Known by the intended product name 'uncaged', this project originated from the ideas of one member who had been developing the concept on a hobby/part time basis. The cluster was seen as an opportunity to develop the venture into a full time business by utilising the existing resources of cluster firms, thereby minimising the need for new investment.

Despite this start, at the time of the survey (November 2004) the cluster group faced an uncertain future. CDP funding had been exhausted and the original coordinator had resigned (for reasons unconnected with the cluster). Neither of the joint projects had made progress. The training programme had failed to start because of difficulty recruiting trainees. Uncaged had not obtained immediate support from other cluster businesses partly because of doubts about the viability of garden furniture production in competition with that produced in low income countries.

The weakness of the East Coast's timber processing industry underlies the challenges in establishing a cluster group. The region has not attracted processing investment partly because much of the forestry is of comparatively recent planting. Apart from the established integrated mill, it has not been possible for a new mill to obtain supply of a high volume of logs of a particular grade around which to base a product. At the same time, until recently forest owners have been focussed on exporting logs rather than processed timber. Developing a labour force is another barrier to the growth of processing. As well as the limited availability of labour, the reputation of the existing industry is alleged to discourage potential entrants. The region's large mill has a reputation for poor employment conditions. That reputation may be unfair but the mill's business strategy is to retain a product focus that does not require a highly trained labour force. Of the other three sawmills with export capacity, two are located in the far south of the region. As noted above, these mills operate with more affinity to Hawke's Bay. Their output is, for example, shipped through the port in Napier rather than the smaller East Coast port of Gisborne. These various challenges to the region's industry are more within the scope of ECFIG to influence than East Coast Wood.

CLUSTER CHARACTERISTICS IN COMMON

Given the different context in which cluster projects have formed it is not surprising that different assessments of the clusters were found. There are some issues that are shared in common and these are noted first partly as this enables some interpretations of why projects succeed or struggle to be ruled out. The survey evidence supporting the findings reported below can be found in Appendix 1.

One possibility is that firms in different regions vary in their willingness to contemplate cooperation with other firms. The survey does not support this. The majority of respondents in each group are more inclined to consider

that 'business success is built upon a business's ability to work closely with other businesses' than 'business success is built upon individual businesses'. Of course, these options are open to interpretation. Many of those selecting the option that business success is built upon individual businesses say that this is because ultimately businesses cannot depend on others. Some of these respondents equally recognise that building relationships can be helpful. At the same time, some of those who select that business success is about working with others may be recognising the importance of formal business connections rather than indicating a cooperative outlook. Nonetheless, it can be concluded that working with other businesses is in some way recognised frequently to be an aspect of business success. This makes it unlikely that attitudes toward the concept of cluster cooperation explain the progress made by projects. Rather it suggests that attributes of the particular cluster determine the evaluation of it.

Each cluster includes firms that are also members of at least one national industry association. This can be seen as another sign of the openness to support joint activity. The proportion of firms linked to both a cluster and industry association varies between the four clusters but this partly reflects the range of firms associated with each cluster. Craft-based and other small firms working in the furniture, construction and joinery sectors have the lowest likelihood of being industry association members. These types of enterprise are especially numerous among East Coast Wood affiliates.

The attributes that participants seek in a cluster are another reason for believing that cluster projects are not needed to educate firms about the benefit of working alongside other firms. When asked about the opportunities that it was expected the cluster would ideally promote, each cluster has a majority of firms that see the project as relevant for generating collective industry benefits. An alternative possibility was that firms might view clusters as mechanisms for marketing their business to other cluster participants. This motive does exist for some firms, and is more frequently encountered in some groups than others for reasons that are discussed in relation to each cluster. Overall, clusters are nonetheless viewed as something to assist industry development rather than a means for attracting new customers.

It was generally agreed that 'networks' (of which a cluster was indicated to be an example, as well as an industry association) should 'be joined only if there is definite benefit to the business'. The alternative offered to respondents - it is important to join as many networks as possible - was dismissed by all the respondents linked to the Southern Wood Council and Northland Wood Processing. East Coast Wood was most populated by firms expressing a willingness to join on the basis that something of benefit might result but a majority still believe that joining is most appropriate when there is the possibility of a definite benefit being obtained. Generally, therefore, a strategic investment of time and commitment to network groups is considered appropriate. As noted in the discussion of the survey design, this does not imply a strategic decision had been made in respect of cluster participation as many respondents do not see themselves as members of the cluster to which they have been linked. This is discussed further in relation to each cluster.

The assessment of the comparative roles of clusters and industry associations is another area where firms share some judgements in

common. As noted above, not all firms linked to a cluster are members of an industry association. Those that are not may have been in the past or have opportunity to be and have considered joining an association. Consequently, it was possible to obtain an informed evaluation of the appropriate roles of clusters and industry associations from most respondents. For those responding, a majority in each cluster disagree with the statement that 'industry associations and clusters do similar things', although the frequency of this assessment is higher in the case of the Southern Wood Council and East Coast Wood than the other two groups. Similarly, a majority in each cluster disagree with the statement that 'industry associations demand equal commitment as belonging to a cluster'. This disagreement is invariably on the basis that a cluster implies a higher level of commitment than being in an industry association member, in the sense that while paying membership fees is sufficient to sustain involvement in an industry association more active engagement is needed to remain in a cluster group. Those who agree that there is no difference in the required commitment include respondents who hold positions of responsibility within industry associations.

Four judgements affecting the respective roles of clusters and industry associations are shared by the majority of respondents linked to each cluster.

- Industry associations are about industry politics.
- Clusters manage relations with regional government, industry associations with national government.
- Industry associations are more effective in keeping you in touch with government regulation and programmes.
- Clusters give more scope for your business to influence network activity.

There is one issue that is agreed with by the majority of three clusters and where the other cluster is evenly divided on the issue:

- Clusters provide a better way of keeping in touch with what your suppliers and customers are doing.

The general message from these opinions is that most firms are able to distinguish distinctive roles for a cluster and an industry association. This suggests that there can be a continuing role for both groups while also identifying that clusters may not be most suited to achieving some of the outcomes that advocates often suggest they can. It should also be noted that the assessments relate to the ideal operation of a cluster and does not imply that the cluster project is actually performing a distinctive role.

The overall recognition of cluster distinctiveness is reflected in judgements about the appropriate allocation of government support between clusters and industry associations. In each cluster, a minority believe that it would be appropriate for government to provide support for clusters and not support industry associations (the approximate current position). The largest group of respondents feel that both had equal claims on government support or considered that government should not support either. The latter view had differing origins. One respondent, for example, noted that government support brought the risk of deflecting activity to that which fitted the requirements of government programmes rather than the priorities of the group. Others simply doubt that government programmes are beneficial or appropriate.

Finally, two aspects of the outcomes claimed from association with a cluster were shared by the four groups. In each cluster it was more likely that the benefits obtained would be in respect of information or advice ('information on new equipment, raw material or other purchases', 'assistance to comply with regulation or quality/market standards', 'advice particular to this business' or 'obtained industry intelligence'). Direct business benefits (in the form of a 'new business partner', 'new customer', 'new supplier' or 'training') were less frequently claimed although the balance between the various potential outcomes does vary between groups. The second shared characteristic is the consistency in the relative frequency of outcomes from participation in an industry association and a cluster. In both cases, indirect outcomes are more likely than direct outcomes.

CLUSTER DIFFERENCES

Across the range of issues on which cluster participants were questioned, differences were more apparent than similarities. The following discussion focuses on these contrasts which are summarised under six sections with the survey results relating to each issue given in Appendix 1:

- The level of support for the cluster and profile of participant characteristics;
- Motive for participating in the cluster;
- Preferred organisational attributes of the cluster;
- Comparison with industry associations;
- Outcome from cluster and industry association membership.

Southern Wood Council

Cluster support and participant profile

All respondents indicated that they are active participants in the cluster. This claim is substantiated by the investment being made in group projects and the relatively formal process through which membership is achieved. The Southern Wood Council is unique among the projects in having a strongly affiliated membership. Unlike other clusters, it is meaningful to identify organisations linked to the cluster as 'members'.

A high proportion of members have business relationships with each other. Along with Northland, these relationships are fairly evenly balanced between supply and customer relationships. In other clusters, business links tend to be based on several firms using the same supplier. The equality in the Southern Wood Council cluster is reflected in seven of the nine respondents having over 50 employees. Those without a large direct workforce are significant in their resource size, as measured by the forest area owned or managed.

Asked to consider what choice they would make if they were required to select between staying in the cluster or an industry association, four of seven industry association members indicated that cluster membership would be retained and two others declined to select saying the decision would be hard. Such responses do not test actual commitment but there are differences between the clusters in how this question is answered that perhaps indicate the relative levels of support existing for each cluster. Part

of the context of the Southern Wood Council, for example, has been dissatisfaction among some firms with the responsiveness of national industry bodies to issues relevant to their region. At the same time, for some members at least, part of the aim of the group is to improve representation of regional interests on the agendas of national associations and work in collaboration with them. Consequently, the present position is perhaps most accurately described as being that continuing roles are seen for the cluster and national associations.

Motive for participation

Respondents were asked to select which of seven specified motives for joining a cluster most applied to their organisation. A focus on the key influences was encouraged rather than nomination of all relevant influences. Even with the latter direction, Southern Wood Council members are distinguished by the range of motivations for joining the group. There is one motive that did not exist for any respondent (the 'chance to form new business contacts (supplier, customer or partner) among other members') but otherwise each motive is relevant to at least four respondents. This is the only cluster where no firms look to the cluster as a possible aid to gaining new business relationships. In contrast, the motive 'keep in touch with existing business contacts (supplier, customer or partner)' is particularly frequent.

The motives for joining an industry association have a similar profile as those for joining the cluster. The main difference is that staying in touch with existing business contacts is less frequently mentioned with respect to the industry association membership.

Preferred cluster attributes

The extent to which a number organisational attributes are important in keeping the firm in the cluster was explored. The Southern Wood Council responses are distinctive because of the high frequency with which respondents value:

- 'Ability to influence what the network does'
- 'Other members are firms like your own'
- 'Other members include businesses you know and trust'

The desire to influence group activity supports the impression already given of a cluster attracting active engagement, itself partly the product of prior association among the cluster participants.

Looking at how groups might evolve, respondents were asked to identify how a change in the balance of large and small firm participants and the range of activities represented would affect their support of the cluster. Like Northland, Southern Wood Council respondents favour staying as they are. Increased participation from small firms is not opposed in itself but for the potential risk of bringing firms into the group without the same concerns or willingness to commit resources. Similarly, diversification of member activity to include timber users is not desired as it is doubted that there are common issues to address. These preferences are in line with the perceived effectiveness of the current scope of the cluster's membership. Selective invitations have been made to other firms that it is thought would be able to contribute to the group. It should also be noted that some group activities are open to non members and that non members contribute to the

resource inventory. At the same time, members value the decision making efficiency of a comparatively small group of like minded representatives.

Similarly, there was an overwhelming preference that 'the present membership size needs little change' rather than 'the cluster should aim to grow its membership'. Likewise the proposition 'clusters work best when confined to a small group of businesses that know each other' was supported rather than 'clusters work best when they help businesses get to know businesses that are new to them'. Both these preferences are shared with Northland (although they are slightly less frequently selected in the case of Northland). In contrast, most East Coast and Hawke's Bay respondents want membership growth and introduction to new businesses.

Comparison with industry associations

As noted above, the perceived value of industry associations and clusters does not vary on most of the issues examined. The Southern Wood Council responses are distinctive in three areas:

- Most (two thirds) respondents agree that 'industry associations are more effective in helping to develop new markets'.
- Most (two thirds) respondents agree that 'industry associations are less focused on issues/activities that are of direct interest to this business'.
- Seven of nine respondents agree that 'industry associations are about industry politics'.

The first two of these responses are explained by most Southern Wood Council members being focussed on export markets. National industry associations address issues relating to market access and can support generic marketing strategies addressed to individual overseas markets. At the same time, industry associations can be perceived as being less focused on issues of direct interest than the cluster. This reflects the active work programme of the cluster from which firms are gaining immediate outcomes, such as through the energy efficiency audits. As well, the benefits of industry association involvement in international marketing tend to be at the level of influencing government priorities with respect to trade negotiations. Firms already have international marketing expertise and networks and do not draw on associations for help with their individual market development.

Outcomes

The Southern Wood Council is the only group in which all respondents identify some tangible outcome from being in the cluster. All respondents indicate that they have obtained 'industry intelligence' and at least two thirds indicate a training benefit and some advice particular to their business. At the same time, the group is alone in having no respondents that indicate they have made a new business relationship through the cluster. Of course, this is not surprising given that firms may have had business relationships with each other prior to the cluster coming into being.

Northland Wood Processing

Cluster support and participant profile

Of 12 respondents, 11 described their participation in the cluster as either active or moderately active. One respondent was unique among all those interviewed (across all clusters) in indicating that they had requested to join the group having not been part of the original cluster and not been recruited by a facilitator. Unlike the Southern Wood Council, participation has not required a commitment to any set activities or a significant membership fee. Respondents judged their participation mainly in terms of their attendance of cluster meetings and general support for the group's ongoing presence.

As already noted, the frequency of business relationships among participants in the Northland cluster is high. To a greater extent than the Southern Wood Council, these relationships are balanced between supply and customer relationships and they include a higher proportion of firms claiming other participants as 'business associates/partners'. As explained in the cluster description above, the context of this group is a comparatively new and rapidly growing timber processing industry. Business linkages arise as the expansion of one firm provides raw material for another and as firms seek to specialise their technology and investments from each other.

Firms are of variable size. Two respondents had over 50 employees, with one having around 200, five had from 21 to 50 employees and five had 20 or fewer employees (usually considerably fewer). This diversity of firm types has implications for the cluster. It gives a motive among small firms (which in this context means any firm other than the largest) to stay in the group because opportunities for others are shaped partly by the activity of the locality's dominant enterprise. Consequently to the extent that the cluster facilitates contact with the big firm it can be valued and draw in other participants. At the same time, a differentiation exists among firms according to the business relations in which they operate. Some firms are relatively independent with their own marketing connections separate to the clusters while others have important ties to other cluster firms while retaining their own marketing capacity as well. A further group are dependent to a large degree on their business ties to the larger cluster firms.

Half the respondents indicated that they are members of an industry association. Four of these six respondents indicated that they would give the cluster priority if they were required to select between staying in the cluster or an industry association. Like the Southern Wood Council, dissatisfaction with the performance of national industry associations exists among some cluster supporters and partly motivates their participation.

Motive for participation

Staying informed about what other businesses are doing is the most frequent reason for participating in Northland Wood Processing. All but two of the respondents have this motive whereas the next most frequent influence ('support the industry') exists for half the respondents. Other relatively frequent motives (each selected by 5 of the 12 respondents) are the 'chance to form new business contacts' and to 'keep in touch with existing business contacts'. Northland is the sole cluster where respondents that say the cluster is a possible way of obtaining new

business relationships equal those seeing it as an aid to maintaining existing relationships.

The motives for joining an industry association had a similar profile as those for joining the cluster. The two differences that in combination distinguish Northland are in the relative incidence of:

- 'access to advice/information from the network coordinator/staff';
- 'help ensure everyone is working in the same direction'.

The first of these is an influence on industry association membership but has less influence on cluster membership. The second influences participation in a cluster but not an industry association.

Preferred cluster attributes

Northland is distinctive in the relatively high proportion of respondents that see the ability to assist the formation of new business relationships as a key aspect of the cluster. All but two respondents say this outcome matters 'a lot' or 'a little'. New in this context may mean expanding the ties with existing trading partners or wholly new relationships. As noted in the description of the cluster, there is already a high density of existing business relationships. The cluster is providing a forum where these relationships are discussed beyond immediate interactions. There is generally little expectation that the cluster will introduce firms to businesses that are new to them: only two respondents indicate that this matters 'a lot'.

The single most important attribute is 'ability to influence what the network does' but its frequency is comparatively low. Half the respondents say this matters 'a lot' indicating that Northland has fewer participants wishing to shape cluster activity than in the case of the Southern Wood Council. Other contrasts with the southern group are that in Northland there is comparatively low concern that 'other members are firms like your own' and that 'other members include businesses you know and trust'. Whereas for the Southern Wood Council, frequently these issues matter 'a lot', in Northland they more frequently matter 'a little' or not at all.

Although Northland includes participants who view the cluster as something that ideally will assist their immediate business development, like the Southern Wood Council the majority view the present membership profile as appropriate. Most see that any diversification of business activity represented in the group would be unhelpful and most favour the group staying around its current size rather than seeking to expand its membership. Similarly, any shift in the present balance of small and large firms is most frequently viewed as undesirable. Consistent with these preferences, most respondents agreed that 'clusters work best when confined to a small group of businesses that know each other'.

Compared with the Southern Wood Council, Northland respondents are less concerned that the cluster is confined to known and trusted businesses but equally prefer that the cluster remains as a small group. The comparative lack of emphasis on 'known and trusted' businesses may be explained partly by what it is intended the cluster should achieve. In Northland, a significant aspect of the cluster is the provision of a forum where individual firms discuss mutual opportunities. This interaction can be driven by business self interest and confines the sharing of information to those in an ongoing trading relationship. In this sense, knowing and

trusting is less important than having a basis on which to work for mutual business advantage. The development of collective industry projects would involve working with other firms more broadly and for this familiarity and trust are important. This has been the context for the Southern Wood Council where cluster members are relatively large and self contained, with a history of working together outside of immediate business transactions (for example, to coordinate activity on shared forest boundaries).

Comparison with industry associations

The comparative judgements made on cluster groups and industry associations are consistent with the Southern Wood Council with one exception. In Northland there is no overall view that 'industry associations are more effective in helping to develop new markets'. Most respondents either disagree or are uncertain which type of group offers most marketing support. This difference is in line with the role that the Northland cluster plays and the small number of firms that currently serve export markets.

Outcomes

Northland Wood Processing has the largest proportion of respondents that indicate a new supplier has been gained as a consequence of their cluster membership. Six respondents indicate this has happened. In some instances firms have been able to switch from purchasing inputs through a wholesaler to purchases direct from another cluster member. In other cases, a new supplier may be outside the cluster and recommended by another cluster member. Consequently, fewer (three) members indicate that they have obtained a new customer. Combining new supply and customer relationships, Northland has the highest frequency of direct business outcomes.

Information and advice outcomes are frequent as well. Three quarters of respondents indicate they have gained 'industry intelligence' (second highest to the Southern Wood Council). Information on 'new equipment, raw material or other purchases' and 'training' are other comparatively frequent outcomes. For those that are industry association members, the incidence of information and advice outcomes is similar although none indicate any direct business outcomes from their industry association membership.

Wood Hawke's Bay

Cluster support and participant profile

Fewer than half the respondents linked to Wood Hawke's Bay indicate that they remain participants in the cluster. Two respondents indicate that they support the cluster actively and four that they give it moderate support. This is the lowest rate of engagement of the four cluster projects. In addition, three interview requests were declined and in two cases the reason given was the firm's disinterest in the cluster group.

The weak attachment to the group is mirrored in the limited interaction among businesses that have been linked to the cluster. Ten respondents indicate that they have one or more suppliers among other cluster firms but this is mainly explained by purchases from the region's single large integrated timber mill. Consequently, only two respondents say that they have customers that participate in the cluster. One business being supplied

is based on processing a by-product from the cluster's main mill. Otherwise intra cluster trade accounts for a tiny share of production. The main timber mills are focused on export markets. The mix of firm sizes is close to that in Northland except that the smallest participants include individual owner operators without employees.

Given the choice between staying in the cluster or an industry association, eight indicated that an industry association would be given priority. In line with this preference, this group has the highest proportion of respondents indicating that government funding should be directed to industry associations rather than clusters.

Motive for participation

A low concern both to 'stay informed about what other businesses are doing' and to 'help ensure everyone is working in the same direction' distinguish the reasons given for 'joining' the cluster. Half the respondents say that staying informed about other businesses is a main reason for being in the cluster. This proportion is low in comparison with the Southern Wood Council and Northland. The implication that cluster firms remain focussed on their individual organisational needs is underlined by the absence of any respondent indicating that they support the cluster to help 'ensure everyone is working in the same direction'. In other clusters, at least a quarter of respondents have this motive for supporting their group. This implies that Wood Hawke's Bay is missing a potentially important motive for sustaining involvement: the ability to encourage a shared outlook on issues affecting the industry's development.

The challenges to building a cluster group in the Hawke's Bay are further highlighted by the motives that are given. 'Support the industry' is the second most frequent motive after 'stay informed about what other businesses are doing'. This motive indicates that some participants have been drawn in without seeing direct benefit for their own organisation. Goodwill is implied when firms support a project that is seen to be of benefit to other organisations rather than their own. There has been demonstration of this goodwill. A number of cluster participants, for example, provided financial support to four designers linked to Cicada Studio (the furniture design workshop and associated business incubator) to enable their participation in an overseas trade show. This support was coordinated by the cluster's facilitator who approached cluster participants for contributions. On the other hand, membership does not involve any obligation to make such contributions.

Other relatively frequent motives, each mentioned by 5 of the 14 respondents, are the 'chance to form new business contacts' and 'access to advice/information from the network coordinator'. Wood Hawke's Bay differs from other cluster groups in that the coordinator's role is to provide business advice to individual firms, particularly in respect of help in international marketing. Clearly some firms have made use of this advice and obtained benefit from it. More generally, and like East Coast Wood, the group has more respondents indicating that they see the cluster as a 'chance to form new business contacts' than as a way of keeping in touch with existing business contacts. Clearly this raises more expectations for the cluster than where it is built on maintaining established linkages.

Preferred cluster attributes

Wood Hawke's Bay is distinctive in the relative disinterest expressed in issues affecting the operation of the cluster. No respondent wanted to be able to influence who else joined the cluster and only three respondents indicated a desire to influence what the cluster did. A capacity to assist the formation of 'new business relationships with other members' is the single organisational issue considered important by more than a few respondents.

Similarly, most respondents expressed no concern with any change in the cluster's membership profile with respect to the balance of large and small firms or the diversification of business activities represented.

The majority of Wood Hawke's Bay members believe that the cluster should aim to grow its membership and that 'clusters work best when they help businesses get to know businesses that are new to them'. These preferred attributes are shared with East Coast Wood. In both these clusters there is a comparatively widespread perception that the cluster should have direct business benefits in helping members establish new business relationships.

Comparison with industry associations

In the case of Wood Hawke's Bay, the comparative judgements made on cluster groups and industry associations are unusual in four aspects.

- Hawke's Bay firms are the most undecided that 'clusters provide a better way of keeping in touch with what your suppliers and customers are doing'. There are equal numbers of respondents agreeing and disagreeing with this proposition. In the other clusters, a majority of respondents see clusters as more effective than industry associations as mechanisms for maintaining supplier and customer relations.
- Most respondents are undecided whether industry associations or clusters are most effective in assisting firms develop new markets. When an opinion is given, like Southern Wood Council, the majority believe that industry associations are more effective than cluster groups.
- Wood Hawke's Bay is the only cluster where most respondents agree that 'clusters are just about business'. In other clusters, this statement is usually opposed on the grounds that the cluster directly encourages interaction among participants that is valued for reasons other than having business outcomes.
- 'Keeping you in touch with industry developments such as market changes and new machinery' is an area where Wood Hawke's Bay respondents more frequently consider the cluster to be more effective than industry associations. In all other cluster groups, most respondents rate industry associations as more effective than clusters in this area of support. The overall response from Wood Hawke's Bay includes a relatively high proportion of respondents who are undecided on this issue.

Outcomes

There are a comparatively large number of firms reporting direct business outcomes from their involvement in the cluster despite the overall low

levels of support and engagement with the group. Four respondents indicate that they have gained a new customer (more than any other cluster) and two of these also indicate that they have obtained a new supplier. The most significant of these impacts involved a furniture manufacturer that had made contact with two saw mills from whom it now purchased timber rather than obtaining supplies through a timber merchant. In the case of a firm indicating that it has a new customer and supplier, these relationships are connected to a joint venture that is still under investigation rather than being already of significance.

Overall, as with other clusters, informational benefits are more frequently indicated than direct business outcomes. The receipt of 'industry intelligence' is the most frequently cited outcome, in common with other groups. Information on new equipment was mentioned by half the respondents, consistent with the judgement on the relative significance of clusters and industry associations mentioned above. Otherwise, no other outcome is mentioned by more than five participants. In respect of the frequency with which information outcomes are reported, industry associations are having more impact than cluster participation. In this respect, Hawke's Bay is similar to East Coast Wood.

East Coast Wood

Cluster support and participant profile

Six participants in East Coast Wood describe their current support for the cluster as low (including three who suggest that they no longer participate) while five describe themselves as active supporters. Of the five participants that are also industry association members, three indicate that their industry association membership would be retained over participation in the cluster while two had the opposite priority.

One respondent indicates that other cluster firms are customers and seven indicate that they have a supplier who is a cluster participant. This pattern is explained by the sourcing of timber from one of the large mills linked to the cluster. Each of these mills relies predominantly on exports, supplying local firms with comparatively small volumes or a by product such as below grade lumber for reprocessing. Two participants have business associates among the other cluster participants. This includes the agreement between the polytechnic and a cluster firm (see the cluster description above) that came about following a cluster meeting at the firm's worksite. Overall, East Coast Wood is similar to Hawke's Bay in the relative absence of inter firm business activity.

There is a preponderance of small enterprises in the cluster group. Among business respondents, one respondent has over 50 employees while the other ten all have fewer than 20 employees including three who are self employed individuals. The respondents were evenly split among those engaged in saw milling or timber manufacturing and those involved in joinery or furniture production.

Motives for participation

Three motives for supporting the cluster are identified by more than three respondents: 'support the industry', 'stay informed about what other businesses are doing' and 'help ensure everyone is working in the same direction'. This concentration of responses gives East Coast Wood the least diversity of influences shaping participation. Like Hawke's Bay, little

support for the cluster comes from its perceived help in maintaining existing business relationships. One respondent gives this as a motive for supporting the cluster, the lowest rate of mention among any group. Similarly, there is only one respondent indicating that 'access to advice/information from the network coordinator' is a motive for supporting the cluster. This is the lowest incidence of this motive being mentioned.

Like Hawke's Bay, the responses suggest a cluster that has gained initial support from participants who see little direct benefit resulting for their own organisation. The comparatively high frequency of participants seeing the cluster as something to help ensure everyone is working in the same direction is potentially suggesting a usefulness for the cluster. This motive is cited by individual respondents engaged in different activities. One timber processor sees 'working in the same direction' as important from the perspective that firms would benefit if they consciously sought to develop complementary specialisations. Two furniture producers believe that the local development of their industry will rely on firms integrating activity, for example with respect to timber selection. One joinery firm interpreted 'working in the same direction' as encouraging firms to buy locally. Training organisations want other cluster firms to use their training resources. Significant among these responses, other than the training agencies, there is not a shared concern within any activity specialisation (timber processing, furniture, joinery) on the importance of the issue.

The motives for joining an industry association differ from those given for supporting the cluster. All industry association members note the 'access to advice/information from the network coordinator' as a motive for being an association member. The incidence of other motives varied between the individual organisations involved.

Preferred cluster attributes

Among the organisational attributes that may influence the willingness to continue supporting the cluster, the 'ability to influence what the network does' is the only attribute considered important by a majority of respondents. East Coast Wood is unusual in combining concern to influence activity with a general disinterest in influencing who else joins the cluster. Whether participants have a specific view of the activity that the cluster should engage in, suggests that this ought to be linked to a preference for the range of activities and types of organisation participating in the cluster. This connection does not exist in East Coast Wood. Three respondents indicating that influence over cluster activity is important to them also indicate that they are no longer active supporters of the cluster. They have formed a view that the cluster group is no longer of significance to their organisation without developing a specific vision of a cluster that might retain their support.

An inclusive group is preferred by those respondents who say that they remain active supporters, want to influence activity and are unconcerned about influencing who else joins. This applies to training agencies that view a cluster group as helpful in promoting interest in training and gathering understanding of demand among as wide a group of firms as possible. The one active member from a business wanting influence without concern about who else joins sees scope for cluster projects to attract support from varying parts of the cluster membership. This perspective was balanced by one other active participant wanting influence

alongside a view that the cluster be restricted to firms engaged in similar activity.

As noted above, East Coast Wood shares with Hawke's Bay a preponderance of respondents that favour membership growth and that believe 'clusters work best when they help businesses get to know businesses that are new to them'. This means that while comparatively few respondents say they are motivated to support the cluster because of the chance to form new business relationships, providing this opportunity is something that a cluster is expected to facilitate. A large gap is implied in these responses between what is thought to be the role of a cluster and what the East Coast cluster can currently promote.

Comparison with industry associations

East Coast Wood has a comparatively small number of participants that are members of an industry association. Partly for this reason, many respondents are undecided on the perceived differences between clusters and industry associations. Where at least half the respondents have an opinion, the results are unclear as the extent to which a cluster is thought to give opportunities that may not arise with an industry association. As well as the judgements shared with other groups (that clusters are most effective in keeping you in touch with suppliers and customers and offer more scope to influence activity) a comparatively high share of East Coast respondents think that clusters are more effective than industry associations in helping to develop new markets. On this issue, East Coast is similar to Northland. The East Coast is distinctive in having the largest share of respondents among any cluster that see industry associations as 'less focused on issues/activities that are of direct interest to this business'.

Outcomes

East Coast Wood has the lowest frequency of outcomes of any cluster. Four respondents indicate that there have been no outcomes and another four indicate that they have obtained information only in the form of news items in the cluster newsletter. The latter might be included as a form of 'industry intelligence' but it does not necessarily mean information of direct relevance or value to the recipient. The extent of outcomes is reduced further when restricted to actual rather than potential business outcomes as one of the new relationships claimed is contingent upon other support being obtained. In contrast, the proportion of respondents who are industry association members claim a range of outcomes in proportion to industry association members in other groups.

Discussion of cluster differences

If the presence of a cluster group is judged by the existence of some form of collective activity beyond ongoing business relationships, this investigation identifies two contexts in which it has been possible to sustain such groups (the Southern Wood Council and Northland Wood Processing). These contexts have given rise to cluster groups that differ in their degree of formalisation, range of activity and potential importance for business development. At the same time, there are some similarities in the way that both clusters do not conform to some of the attributes that are frequently referred to by advocates of the importance of promoting business clusters.

In contrast, there is much in common between the two contexts where a cluster group has not made significant progress (Wood Hawke's Bay and East Coast Wood). In essence, both groups are held back by the absence of a sufficient concentration of similar business activity. The attempt to build a cluster by bringing together activity from different stages of the value chain has not worked because the value chain connections are weak and the targeted businesses have few issues in common.

The three experiences encountered in the study can be summarised as examples of a balanced cluster, an unbalanced cluster and an unconnected cluster.

SOUTHERN WOOD COUNCIL AS A BALANCED CLUSTER

The main drivers of the Southern Wood Council have been seven medium-sized forestry companies. These companies span forest ownership and sawmilling, sometimes within an individual organisation or through operational ties. Nationally, the tendency has been for these activities to be affiliated to different industry associations that have had divergent political agendas. The Southern Wood Council has avoided the need to manage these different priorities. This has directed the group to common forest industry development issues and enabled it to draw on the combined resources of forest owners, managers and timber processors.

A potential division within the Otago-Southland forest industry is the split between New Zealand and foreign owned enterprises. Five of the drivers of the Southern Wood Council are New Zealand branches of international organisations but all are managed locally. The regional embeddedness of the cluster participants is further encouraged by overseas owners having tended to acquire established assets rather than generating 'greenfield' investment. As well as continuity in the underlying activity there are long established operational ties. These might arise from the need to manage boundary issues between adjoining separately owned forests or from timber supply arrangements. Today, the commonality between individual members is further encouraged by overlapping ownership ties among four of the seven original participants.

These characteristics mean that the cluster commenced with a high degree of familiarity among participants and relative certainty that there was going to be some value in setting up a group. A representative of one company

had confidence that other potential participants were the 'right' ones in the sense of having some issues in common and of them being able to make a contribution to what they saw to be the group's role. Even then a significant local issue was needed to bring the group together. A definite purpose brought firms together rather than a vague intention or the recruitment efforts of a third party. This was the preparation of the forestry resource profile. Three aspects of this project made it unusually effective in helping to get support for the formation of the cluster group.

- There was certainty in the outcome, assuming that participation was secured. As noted previously, the project was about preparing a resource inventory with estimates of timber availability differing from those in the official forest description. An alternative profile had already been prepared in a study for the Otago port authority giving timber flow projections below the government figures. More directly, group participants were the major forest owners and had the most accurate data on these holdings as well as knowledge affecting the accuracy of official estimates.
- Preparation of the profile required companies to share their proprietary information relating to forest harvest forecasts, mill processing capacity and investment intentions. This raised less concern than it might in other industries given the transparency of forest holdings and mill activity and the availability of already published data. Even so, a degree of confidence in the openness of other participants was involved in the preparation of the resource profile and this made it an effective group building exercise.
- There is mutual advantage in providing an accurate resource profile. The underlying motivation is to influence investment intentions. Initially the concern was to correct estimates suggesting that there was significant scope for new investment in processing capacity. This might be viewed as mainly an issue for timber processors concerned about the need to compete for timber to process. It is more than a sectional issue because of the integration of forest ownership and processing and because forest owners see benefit in seeking to provide potential investors with accurate information. It can be noted further that the latest resource profile includes identification of new investment opportunities.

Beyond the immediate stimulus for the group, it has gained from other shared motives connected with the sense of the region's forest industry being a distinctive part of the industry nationally. Added to this is the compatibility of the cluster organisation with the expectations of managers. As one respondent expressed it, the group operates with business like efficiency. Group meetings are attended by decision makers. All the issues that are discussed are not of equal concern but extended discussion is generally not required to gain agreement to progress individual matters. The same respondent contrasted this experience with another cluster group in which their organisation in a different part of the country had participated. It had sought to bring together a diverse set of businesses, although all linked to timber processing. In this case, experience was that there was little of common interest or to justify involvement. By comparison, it was comparatively easy to make a business case for staying part of the Southern Wood Council.

The outcome is a group that has undertaken a range of significant projects, sustained and strengthened its membership and developed an ongoing

programme of activity. Nonetheless, three aspects of the group are in contrast to the expectations that can exist about cluster groups.

- The group is not about business development in the sense of seeking to influence competitive strategies, the allocation of investment between individual companies or marketing strategies. The business advantages expected from supporting the group are about facilitating access to resources and changing how outside agencies perceive the region's forestry industry.
- While there is a high degree of familiarity among the representatives of companies there is ambivalence whether this means that there is also trust. Whereas management literature about clusters tends to assume high levels of trust are an aspect of effective clusters this is not reflected in the Southern Wood Council. There is familiarity and shared understanding that facilitates working together alongside the desire to protect individual company advantages.
- Some collective activity that it was thought would provide a role for the group has on further investigation not proved viable. This includes the development of some form of regional brand and the opportunity to pool purchasing of transport services and insurance. A range of activity has gained support and up to now participants have continued to support the group even where some of its activity has been directed to issues that are not of benefit to their organisation. Participants currently indicate that they take a long term view of the outcomes, although two respondents indicate that their ongoing involvement will be influenced by the nature of projects taken on by the group. It should also be noted that not all the companies approached to join the group have done so, including two relatively large saw mills that would have diversified the group to include mills without forest interests.

The cluster operates with a relatively confined role that does not impinge on individual company activity. On the other hand, it has sought to spread the benefits to other industry participants not in the group. There is a view that participants should have something to contribute, implying industry insight and resources for joint activity. Beyond that, a limited membership is not about promoting a specifically 'big business' agenda. Rather it is to protect the perceived decision making efficiency and focus of the group. Consequently, the group can justify public support for its potential to assist the industry as a whole within its region of influence.

NORTHLAND WOOD PROCESSING AS AN UNBALANCED CLUSTER

The operation of Northland Wood Processing is influenced by the differences in enterprise scale and the extent to which firms are reliant on other cluster firms. The cluster includes two large operations. One of these is a relatively self contained branch of a corporate group that has been a comparatively passive participant, is focussed on specialised product and relies on timber obtained mainly from its own forest estate. The other is an independently owned saw milling operation that produces construction timber for the New Zealand and export markets. This mill currently processes around five times the volume of timber of any other independent operation in Northland and has development plans to quadruple its capacity in the region. The activities of this firm are of great significance for

the opportunities existing for smaller companies in the region. The volume of timber it purchases can influence the volume of timber available to other buyers and the investment decisions it makes can determine the production niches left for smaller and more specialised operations. Consequently, how other firms experience the group is affected by their relationship with this dominant participant in the Northland cluster.

In addition to the single large active participant in the group, respondents could be grouped into three categories.

- Firms that have business relationships, directly or indirectly, with the large firm but that are predominantly dependent on their own marketing.
- Those firms that are predominantly reliant on the large firm for their main business activity.
- Firms with no business connection to other cluster participants.

Firms in the first category are most likely to report positively on the cluster. These firms can be working in a synergistic relationship with the dominant enterprise, purchasing services or material from it and selling material or services of its own back to the company. This offers mutual advantages and provides a context in which the opportunity provided by the cluster group to discuss business issues informally is valued. Smaller firms have benefited from the success of the large firm as well as retaining their own business development capacity. As well, there are some issues shared in common that the cluster has been directed to such as promoting the industry as a source of employment to job entrants and seeking to encourage a positive attitude toward the industry among local politicians.

The second group, which are less frequently encountered, have a significant dependence on the large firm. They are under no constraint to retain that dependence but are at a point of development where the large customer is likely to account for the main part of their business for some time to come. If this type of firm has development aspiration beyond its current market base, the cluster can be viewed as something that reinforces their present dependency. Activity pursued by the cluster tends to rely on it fitting the priorities of all members but with particular influence exerted by the large firm given its resource power and out of respect for its business leadership. Enterprises seeking to increase their independence from the cluster may nonetheless perceive a degree of inequality in the influence on cluster activity.

Firms in the third group vary in their perception of the cluster. Some have reacted against what they see as a group dominated by big business concerns and have withdrawn from participation. Some value the opportunity to participate in a group where there is the possibility of gaining industry insight from its most successful participant as well as other companies. Others are uncommitted. They see potential benefits in the initiative, especially if it is able to attract activities such as engineering support to the region. At the same time, to date they see little direct outcome from the cluster.

This cluster is vulnerable to any change in commitment to the cluster by its central participant. Should this firm withdraw from being associated with cluster, the usefulness of the cluster to other existing participants would decline.

HAWKE'S BAY AND EAST COAST AS UNCONNECTED CLUSTERS

The Hawke's Bay and East Coast clusters lack a core of enterprises motivated to participate in their group. Like Northland, these localities have a dominant enterprise. Even where this enterprise has been a supporter of its cluster it does not generate the same motivation among other businesses to join the group. The dominant enterprises in Hawke's Bay and East Coast are like the corporate operation in Northland that has similarly had little influence on neighbouring firm orientation to the cluster group. These companies are overseas owned (incidentally from the same country) and operate with a high degree of self-containment. They source raw material from their own forest and have a focus on export markets. Inter connection with other firms exists, as in supplying sub-standard product as a raw material for firms that may remanufacture it, but the investment activity of the large firm is not influenced by resources that other firms may have to offer. The major indicator of this is the absence of a significant wood processing sector outside of the large firm.

It is interesting that the character of the 'big firm' in the clusters varies without this affecting the ability to promote a cluster group. One of the firms has a desire to be respected in the community and operate as a good corporate citizen. It has endeavoured to support the cluster but on the basis of this being a contribution to neighbouring industry rather than because it perceives direct business benefit to itself. The other big firm does not share this outlook and has a poor reputation in the community but this in itself is not a reason for the cluster's lack of progress.

In the absence of being able to sustain support from the wood processing sector alone, both unconnected clusters have tried to diversify membership and draw in any activity with a connection to timber. This approach fits the advocacy of clusters as something that can help integrate value chains but overlooks the limited connection existing between timber processors and timber users. New Zealand's wood processing sector is focussed on supplying the pulp industry and minimally processed timber. The furniture and joinery industries, the main other activities brought into cluster, are small sources of demand and exert no influence over the growing or processing of plantation timber. As a result timber processors tend either to be indifferent to the presence of these downstream users or deterred by the perception that unconnected businesses add an unhelpful burden to the cluster. The reaction of furniture and joinery to being linked to the forestry sector can be positive where there is a perception that they may be helped to source timber directly, but predominantly these firms see themselves as belonging to a separate sector.

A further weakness of seeking to diversify cluster support is the difference in perceived need for a cluster group. One of the unconnected cluster localities has given particular effort to drawing in the joinery sector. Among these firms the perceived need for a cluster group was low. In a small town, it is explained; competing firms are already well known to each other. Longer established firms, for example, tend to be the former employers of people setting up new businesses. Individual firms may occasionally over commit their resources and need to draw on the willingness of competitors to act as subcontractors. Machine breakdowns may require calling on a 'friendly' firm to help them out. These kinds of mutual support exist and are seen to negate much of what it is understood the cluster group is intended to help create.

The other efforts made to integrate the unconnected clusters have varied between the groups. In one cluster, there has been an effort to promote a new business configured according to the theoretical possibility of how a cluster group can operate. In the other cluster, a full time facilitator has sought to maintain support for and use of the group. The first of these approaches originated in the efforts by one cluster business to convert a fledging enterprise into a sustainable business by drawing on the resources of other cluster businesses. It assumed that other businesses had spare capacity to support the venture or be willing to supply it with raw material on favourable terms. The mix of participation would be determined partly by the spare resources that each firm had available. Ideally, additional business activity would be generated without the need for new investment until such time as the new venture had outgrown existing collective resources. This attempt to promote a substantial shift in business strategy failed to gather support. Even where collective resources are to be used, one firm is needed to take the lead in committing resources and establishing the viability of the proposal. The additional business offered at the outset led some to see the project as a nuisance rather than a potentially helpful diversification. From the project proponent's perspective, the proposal was a way of exploring how the cluster might be put to use rather than a business plan that was closed for discussion. Other participants in the cluster, on the other hand, were inclined to view the initial ideas as a finalised proposal and judged it accordingly. This gave an additional reason for giving little further attention to the cluster.

In the other cluster, the role played by the facilitator has varied at different stages in the group's existence. Initially, the facilitator sought to bring firms together and promote inter firm cooperation. This gave rise to regular cluster meetings, rotated among individual workplaces as a way of increasing familiarity about what each business does. Over the last two years, the emphasis has shifted to offering a support service to individual firms. Joint activity is still encouraged but only in response to specific needs and opportunities and more likely to involve a few firms than the group as a whole. Both approaches have limitations in sustaining an unconnected cluster group. Acting as an introduction agency among a finite group of firms has a limited life. Potential partners soon judge whether they have something in common. If firms perceive that they have little to gain from getting to know each other, the incentive to keep attending group meetings drops off. Shifting the focus to one off support addresses this risk and provides a way of maintaining a broad membership but it can have little impact on increasing business inter connection. A risk is that some participants perceive that the allocation of facilitator effort advantages firms other than their own and that this becomes a reason for withdrawing interest. Either way it is not easy for a facilitator to build a cluster where one does not exist, although individual businesses may value the help received.

Policy implications

This review of cluster projects implies a need for clarity in the objectives of public agency assistance to business clusters. A high proportion of the firms that are linked to clusters are members of national industry associations. These organisations see distinctive roles for cluster groups and national industry associations. Many of the gains that government policy seeks to generate from cluster groups are seen by business managers to be more effectively delivered by national industry associations. This applies to new market development and advice on technology and other possible sources of business performance improvement. Clusters are usually seen as more helpful than industry associations for helping firms stay in touch with customers and suppliers. In terms of generating new business relationships, it seems that clusters and industry associations are both unlikely to do this. As noted in the discussion of the CDP, cluster support has broadened to give eligibility to national industry associations. Arguably policy intervention would be further improved by understanding what each type of agency is seen to be most useful.

In considering the case for broadening support to give equal opportunity to localised cluster groups and national industry associations, it would be helpful to obtain further insight into the appropriateness of accommodating choice in interest group associations. A trade off can be viewed to exist between the benefits of diversifying the options for participating in collective groups versus the benefits of concentrating collective activity. The former may maximise the number of firms engaged in some form of group, spreading the gains from joint activity, but at the expense of creating groups that are comparatively under resourced and fragmented. The option of concentrating participation within fewer large groups may reduce overall membership but bring the advantage of encouraging firms to resolve the differences that otherwise encourage fragmented representation. It might also result in collective groups that are well resourced and directed to significant industry improvement projects. Of course, the distinction between dispersed (industry associations and clusters) and concentrated representation (say through a few national associations with regional branches) may not need to be made. As seen with the Southern Wood Council, for some participants at least this is an initiative partly about improving the responsiveness of national industry associations to a wider range of business interests than it is thought have hitherto been responded to. In this sense, clusters may be a vehicle for reforming national industry groups. This possibility underlines the relevance of gaining better understanding of business representation in all forms of association prior to considering support for any particular type of group.

The appropriateness of extending cluster support to unconnected clusters is a related policy issue to emerge from the study. The response to this answer depends partly on the issues that it is expected clusters will address. Any justification for assisting unconnected clusters on the grounds that it may help them acquire the characteristics of a connected cluster appears misplaced. It is doubtful that such a transition can be engineered given that it relies on the objective characteristics of business populations rather than attitudes and behaviours that are perhaps open to manipulation. At the same time, regardless of being relatively connected or

unconnected, cluster groups tend to be viewed as more useful than industry associations for some purposes. It appears that even well connected clusters are unlikely to have direct business outcomes although they may assist long term industry development.

Finally, it is appropriate to recognise that government support is not necessarily expected or welcomed by participants in clusters. As one respondent observed, the existence of government programmes can become a distraction. It risks directing groups to activity that fits within programme objectives rather than to activity that is actually of benefit. Asked whether government should give financial support to clusters or industry associations, 42 percent indicate neither. Some participants voice the need for having a neutral component to groups, as something to assist collaboration by controlling the ability of one firm to dominate. This neutrality may be provided merely by meeting at a venue provided by a public agency (as happens with two of the clusters) or extend to the employment of a group facilitator as well. This consideration needs to be balanced against the reality of unbalanced clusters where a dominant firm is inevitably going to have more influence irrespective of the presence of a facilitator. Neither is a facilitator always able to allay suspicions that firms may have of a paid cluster official. One former cluster facilitator indicated that their presence as a paid advocate of the group led some to question whose interests the group was really serving. On balance, the presence of a facilitator is something that can be helpful without relieving all sources of tension. Most respondents in the balanced cluster held this view pointing to the impact in helping to maintain activity and search out other sources of support. Equally, it is important to recognise that facilitators must work within the constraints set by their group. It would be inappropriate to judge their performance according to how far their efforts have created a connected cluster when their business population makes it more appropriate to act as an advisor to individual businesses.

Conclusions

This study set out to explore cluster experiences in the context of a sector where it was known that these experiences varied. It was also known that firms have many choices of collective association other than cluster groups. These associations are part of the industry's politics that have sometimes included animosity between independent timber processors and corporate forestry groups. This context has been changing partly through the relative decline of New Zealand owned corporate forestry groups. In early 2005, for example, efforts were being made to broker a pan industry forestry group to better represent the interests of the industry to government alongside the continued presence of associations aligned to individual parts of the sector. The inherited differences nonetheless resurface in the difficulty gaining support for this idea. For these reasons, this sector's experiences may not be typical. At the same time, there is no reason to doubt that the three types of clusters are replicated in other parts of the economy along with other cluster models exhibiting particular degrees of balance and connection.

Business clusters may vary at the outset but it might be argued that they still have potential to become more similar in character. This has certainly been the expectation of cluster advocacy in New Zealand. It is reflected, for example, in expectations that cluster development is about promoting value chain integration and in presentation of standardised stages through a cluster is expected to evolve. This type of thinking is not supported by this investigation. Clusters are a variable phenomenon according to the balance of participation among firms of different size and local market dependency and according to the extent to which they comprise a concentration of similar activity. This starting point determines the track along which the cluster may develop and the extent to which it is capable of generating advantage, as well as determining how widely distributed those advantages are likely to be. An investigation encompassing a wider range of clusters would doubtless add to the diversity of these experiences.

Beyond this general observation it is evident that it is important to distinguish clusters as a localised grouping of related organisations from a national industry group. Some cluster advocacy encourages giving little attention to the scale of geographical coverage of a group indicating that clusters may exist nationally, regionally or locally. This is true in the sense that firms may be grouped at any spatial scale. It is misleading in overlooking that activities that a group may advance will be influenced by the geography of its membership. Many firms are uncertain whether it is most useful to engage with other firms locally or nationally but it is recognised that the choice made will affect the possible benefits obtained.

Discussions of business clusters can encourage a view that firms outside a cluster operate in a starkly different environment to those within a cluster. They risk being bereft of opportunities to engage in cooperation with other businesses, enmeshed in distrustful business relationships, constrained in their choice of competitive strategy and disadvantaged by their lack of access to collective resources such as training and technology learning opportunities. This type of presentation is challenged by this investigation. Clusters are not automatically a win-win opportunity for all participants. A balanced cluster gets close to this ideal outcome but this context is unusual

in a world that has seen the growing importance of multinational enterprise alongside the survival of small scale enterprise. As clusters get unbalanced so the distribution of advantage is likely to reflect the underlying structure of business relationships, including some who see the cluster as wholly to their disadvantage. Further reason for disputing the claims of significant advantage in clustering is that the most coherent balanced clusters can set tighter limits to the use of the cluster than the expected impact across all areas of business activity. This is particularly apparent in export focussed clusters that, as with the Southern Wood Council, include businesses some with many decades of experience. Such enterprises have multiple connections and differentiated opportunities from their neighbours. To protect established competitive advantages, individual enterprises prefer to retain an individual approach to their business's development.

References

- Martin, R., & Sunley, P. (2003). Deconstructing clusters chaotic concept or policy panacea? *Journal of Economic Geography* 3, 5-35
- Perry, M. (2001). *Shared trust in New Zealand: Strategies for small industrial countries*. Wellington: Institute of Policy Studies, Victoria University of Wellington
- Porter, M. (2000) Locations, clusters and company strategy. In G. Clark, M. Feldman and M. Gertler (Eds) *The Oxford handbook of economic geography*. Oxford: Oxford University Press.

Appendix 1 – Survey results

CLUSTER SUPPORT AND PARTICIPANT PROFILE

Support for the cluster

No. of respondents in each category of participation in the cluster	SWC	NWP	WHB	EC
Active	9	5	2	5
Moderate	-	6	4	-
Inactive	-	1	8	6

Business relationships among cluster participants

No. of respondents with each type of business relationship with another cluster participant:	SWC	NWP	WHB	EC
Customers	6	8	2	1
Suppliers	5	8	10	7
Associates	1	4	1	2

Support for the cluster and industry association membership

	SWC	NWP	WHB	EC
No. of respondents currently a member of at least one industry association	7	6	9	5
Own membership priority:				
Cluster	4	4	3	2
Industry association	1	1	8	3
Undecided	2	1	-	-
Preferred government priority				
Cluster	2	5	2	4
Industry association	-	1	6	3
Undecided	7	6	6	4

Outlook on participation in networks

	SWC	NWP	WHB	EC
A1. It is important to join as many networks as possible.	-	-	2	4.5
A2. Networks should be joined only if there is definite benefit to the business.	9	12	12	6.5
B1. There are too many networks competing for members.	5	4.5	3	0.5
B2. Having a wide variety of network opportunities is valuable.	4	7.5	11	10.5
C1. Business success is built upon individual businesses	4	3.5	4.5	3.5
C2. Business success is built upon a business's ability to work closely with other businesses	5	8.5	9.5	6.5

Note: Respondents indicating support for both alternatives or unable to offer a categorical judgement scored 0.5.

Respondent employment

No. of respondents in each employment group	SWC	NWP	WHB	EC
Over 50	7	2	2	1
21-50	-	5	5	-
Less than 21	2	5	7	11

Note: estimates based on direct workforce only, excluding contractors.

MOTIVE FOR PARTICIPATION

Reasons for joining the cluster

No. of respondents indicating the motive for becoming attached to the cluster	SWC	NWP	WHB	EC
Stay informed about what other businesses are doing	8	10	7	6
Chance to form <u>new</u> business contacts (supplier, customer or partner) among other members	-	5	5	3
Keep in touch with <u>existing</u> business contacts (supplier, customer or partner)	7	5	3	1
Access to advice/information from the network coordinator/staff	4	3	5	1
Activities organised by the network (for example marketing trips, seminars)	4	1	-	-
Support the industry	7	6	6	7
Help ensure everyone is working in the same direction	5	4	-	6

Reasons for joining an industry association

Number of respondents indicating the motive for becoming an industry association member	SWC	NWP	WHB	EC
Stay informed about what other businesses are doing	7	4	6	3
Chance to form <u>new</u> business contacts (supplier, customer or partner) among other members	-	3	2	1
Keep in touch with <u>existing</u> business contacts (supplier, customer or partner)	3	3	2	-
Access to advice/information from the network coordinator/staff	2	4	5	5
Activities organised by the network (for example marketing trips, seminars)	4	3	3	2
Support the industry	5	1	3	1
Help ensure everyone is working in the same direction	4	-	-	1

PREFERRED CLUSTER ATTRIBUTES

Rating of possible cluster characteristics

No. of respondents giving each rating of the cluster feature				
	SWC	NWP	WHB	EC
Ability to influence what the network does:				
matters a lot	8	6	1	6
matters a little	1	3	1	2
no concern	-	3	10	3
Ability to influence who else joins				
matters a lot	2	4	-	1
matters a little	6	2	-	-
no concern	1	6	12	10
Other members are firms like your own				
matters a lot	4	2	-	1
matters a little	1	5	3	4
no concern	5	5	12	6
Other members include businesses you know and trust				
matters a lot	6	3	3	2
matters a little	2	5	3	2
no concern	1	4	6	7
The network includes businesses that are new to you				
matters a lot	1	2	1	2
matters a little	3	4	2	3
no concern	5	6	9	6
The network gives opportunity to form new business relationships with other members				
matters a lot	2	5	3	3
matters a little	6	5	4	2
no concern	1	2	5	6

Rating of possible industry association characteristics

No. of respondents giving each rating in respect of an industry association membership	SWC	NWP	WHB	EC
Ability to influence what the network does				
matters a lot	3	2	1	1
matters a little	2	-	1	1
no concern	2	3	6	2
Ability to influence who else joins				
matters a lot	-	-	-	-
matters a little	1	1	-	-
no concern	6	4	8	4
Other members are firms like your own				
matters a lot	4	2	-	1
matters a little	2	2	-	1
no concern	1	1	8	2
Other members include businesses you know and trust				
matters a lot	-	2	-	-
matters a little	3	2	2	1
no concern	4	1	6	2
The network includes businesses that are new to you				
• matters a lot	2	-	-	-
• matters a little	1	3	3	1
• no concern	4	2	5	3
The network gives opportunity to form new business relationships with other members				
matters a lot	1	2	3	1
matters a little	1	3	1	-
no concern	5	-	4	3

Issues that may encourage or discourage participation in a cluster

No. of respondents in each category	SWC	NWP	WHB	EC
Shift in the balance of large and small firm members				
positive	-	-	1	4
negative	7	7	1	1
no concern	2	5	12	6
Diversification in the types of firm in the cluster (for example, to include forest owners or furniture makers)				
positive	-	2	1	5
negative	9	7	3	2
no concern	-	3	10	4
Expectation that you form closer business relationships with other cluster members				
Positive	1	5	8	3
negative	4	2	1	5
no concern	4	5	5	3

Preferences for cluster development

Number of respondents with each preference	SWC	NWP	WHB	EC
A1. The present membership size needs little change.	7.5	8.5	4	2
A2. The cluster should aim to grow its membership.	1.5	3.5	10	9
B1. Clusters work best when confined to a small group of businesses that know each other.	8.5	8.5	5.5	1.5
B2. Clusters work best when they help businesses get to know businesses that are new to them.	0.5	3.5	8.5	9.5
C1. Clusters work best when they fit existing ways that members work.	2.5	4	5	2.5
C2. Clusters work best when they put pressure on members to think about new ways of working.	6.5	8	9	8.5

Note: Respondents indicating support for both alternatives or unable to offer a categorical judgement scored 0.5.

COMPARISON OF CLUSTER AND INDUSTRY ASSOCIATION

Southern Wood Council

Comparing a cluster with an industry association	Yes	No	Unsure
Clusters provide a better way of keeping in touch with what your suppliers and customers are doing.	8	-	1
Clusters give more scope for your business to influence network activity.	8	-	1
Industry associations are a better source of business advice.	4	3	2
Industry associations are more effective in helping to develop new markets.	6	1	2
Industry associations are more effective in keeping you in touch with government regulation and programmes.	7	2	-
Industry associations are more effective in keeping you in touch with industry developments such as market changes and new machinery.	5	2	2
Clusters manage relations with regional government, industry associations with national government.	6	3	-
Industry associations are about industry politics.	7	2	-
Clusters are just about business.	7	2	-
Industry associations are less focused on issues/activities that are of direct interest to this business.	6	1	2
Industry associations and clusters do similar things.	-	8	1
Industry associations demand equal commitment as belonging to a cluster	2	5	2

Northland Wood Processing

	Yes	No	Unsure
Comparing a cluster with an industry association			
Clusters provide a better way of keeping in touch with what your suppliers and customers are doing.	7	3	1
Clusters give more scope for your business to influence network activity.	10	1	-
Industry associations are a better source of business advice.	5	5	1
Industry associations are more effective in helping to develop new markets.	4	4	3
Industry associations are more effective in keeping you in touch with government regulation and programmes.	7	4	-
Industry associations are more effective in keeping you in touch with industry developments such as market changes and new machinery.	6	3	2
Clusters manage relations with regional government, industry associations with national government.	7	2	2
Industry associations are about industry politics.	9	2	-
Clusters are just about business.	4	7	-
Industry associations are less focused on issues/activities that are of direct interest to this business.	8	2	1
Industry associations and clusters do similar things.	4	6	1
Industry associations demand equal commitment as belonging to a cluster	1	9	1

Wood Hawke's Bay

	Yes	No	Unsure
Comparing a cluster with an industry association			
Clusters provide a better way of keeping in touch with what your suppliers and customers are doing.	6	6	2
Clusters give more scope for your business to influence network activity.	8	5	1
Industry associations are a better source of business advice.	6	5	3
Industry associations are more effective in helping to develop new markets.	6	1	7
Industry associations are more effective in keeping you in touch with government regulation and programmes.	6	5	3
Industry associations are more effective in keeping you in touch with industry developments such as market changes and new machinery.	6	1	7
Clusters manage relations with regional government, industry associations with national government.	6	5	3
Industry associations are about industry politics.	4	6	4
Clusters are just about business.	5	3	6
Industry associations are less focused on issues/activities that are of direct interest to this business.	8	5	1
Industry associations and clusters do similar things.	9	4	1
Industry associations demand equal commitment as belonging to a cluster	6	4	1

East Coast

	Yes	No	Unsure
Comparing a cluster with an industry association			
Clusters provide a better way of keeping in touch with what your suppliers and customers are doing.	7	3	-
Clusters give more scope for your business to influence network activity.	8	1	1
Industry associations are a better source of business advice.	4	1	5
Industry associations are more effective in helping to develop new markets.	3	4	3
Industry associations are more effective in keeping you in touch with government regulation and programmes.	4	1	5
Industry associations are more effective in keeping you in touch with industry developments such as market changes and new machinery.	3	4	3
Clusters manage relations with regional government, industry associations with national government.	4	1	5
Industry associations are about industry politics.	4	2	4
Clusters are just about business.	2	1	7
Industry associations are less focused on issues/activities that are of direct interest to this business.	3	3	4
Industry associations and clusters do similar things.	1	9	-
Industry associations demand equal commitment as belonging to a cluster	2	5	3

Outcomes from cluster and industry association membership

No. of respondents claiming each outcome in the last 12 months	SWC	NWP	WHB	EC
New business partner				
From cluster	-	-	-	1
From industry association	1	-	1	1
New customer				
From cluster	-	3	4	1
From industry association	1	-	-	1
New supplier				
From cluster	-	6	2	1
From industry association	-	1	1	-
Information on new equipment, raw material or other purchases				
From cluster	6	7	7	1
From industry association	3	3	5	3
Training				
From cluster	4	6	2	1
From industry association	3	2	3	3
Assistance to comply with regulation or quality/market standards				
From cluster	4	5	-	2
From industry association	5	3	6	5
Advice particular to this business				
From cluster	7	5	5	1
From industry association	4	2	4	4
Obtained industry intelligence				
From cluster	9	9	8	6
From industry association	4	4	6	4