Community involvement in conservation management issues

A New Zealand action research project

DEPARTMENT OF CONSERVATION TECHNICAL SERIES: 21

Gerard Fitzgerald

Keywords: landcare groups, pest & weed management, conservation issues, action research, participatory rural appraisal, rural community development.

CONTENTS

Abstract

This action research project, sponsored by the Department of Conservation, aimed to develop and test the participatory development of community-based management of pests and weeds, and other conservation issues in a rural community in the Kaikoura District in the South Island of New Zealand. The work was carried out in stages according to the progress of the community, with the researcher facilitating the formation of a broadly-based group capable of planning for and implementing its own management efforts. In order to achieve this objective the researcher first had to assist in the social development of the community. The community established a new local organisation to serve as a representative forum for the district, which then addressed a variety of community, environmental and land management issues. Crucial to the success of this exercise was the modelling of inclusive/ participatory processes by the researcher and the early identification of an important relevant issue which catalysed local residents to work together. Strategies for those working with communities are drawn from the researcher's experience with the project.

1. Introduction

1.1 BACKGROUND TO THE RESEARCH

This origins of this research lie in a need recognised within the Department of Conservation (DOC) in 1994 to develop more effective strategies for working with communities on conservation issues, in particular pest control. The project was advocated in a research proposal by Dr Margaret O'Brien, a social scientist working in the Department at the time.

Two crucial interrelated issues were identified in the research proposal. The first concerned the *ends* the Department was pursuing in its pest control work, and the second was about the *means* by which it should go about achieving possum control in areas where the public considered it had a direct interest in the Department's activities.

The argument was that, in the past, government departments tended to take a coercive approach to achieving pest control in the public estate, with the agencies being the "powerful" seeking to impose their objectives and methods on the community according to their interpretation of the situation or problem. It was felt that some of the public relations difficulties experienced by the Department in possum and other pest control work flowed out of this approach.

It was further suggested that a more constructive role for a local community, apart from being the receiver of decisions made elsewhere, might be as an active contributor to conservation as a partner in the process of designing and implementing a pest control programme (including the choice of pest control technology). This would change the *means* by which the Department's pest control work was designed and implemented. Furthermore, rather than be an indirect beneficiary of the outcomes of control programmes (like any other resident of New Zealand who might value the protection of the nation's biodiversity) the local community could benefit materially, through, for example, supply of goods and services for pest control, and socially through the process of participation itself. This can be seen as relating to the *ends* or outcomes of pest control.

In developing such a relationship with the community, positive outcomes could be achieved for the Department, in addition to reducing the threat to biodiversity from pests. Greater participation by the community might create opportunities for the Department to enhance community understanding of the its work and situation, especially where it was a neighbour, and of conservation processes and issues. The Department might also gain knowledge and practical experience of working in partnership with communities.

The proposed programme of research aimed to develop a co-management strategy for managing pests at the conservancy and local level, and to improve understanding of public responses to the use of a range of pest control technologies, in terms of opportunities for community participation and involvement. What was being proposed, therefore, was a rethink of the

Department's approach to pest control, supported by a detailed situational analysis, and "action research" within the community—both involving agency and community stakeholders.

That this proposal was accepted by the Department and other agencies, with funding allocated, indicated their support. However, work was delayed until related research on public attitudes to possum and rabbit control, initiated in mid-1994 with funding from the Ministry of Agriculture, was completed. In their report on this research, Fitzgerald et al. (1996) identified a strong ethical dimension to the public's considerable reservations about both the use of poisons (especially 1080) for pest control and the potential development and use of biological controls. Because of such concerns and the differing goals for pest control programmes, they recommended that implementation of processes for informed community debate and for community-based development of pest management strategies would be important for gaining community acceptance of control technologies.

Work began on identifying a site for the community involvement and, after initial discussions with a potential host community in mid-1996, the overall DOC research proposal and objectives were reformulated as follows (O'Brien, unpublished research proposal, 1996):

1. A review and critical analysis of the public and departmental issues in immediate past and present programmes of possum control.

2. A review and analysis of previous research into public attitudes and concerns pertaining to possum (pest) control.

3. Development and implementation of an effective strategy to work with the community and other agencies on pest control and land management. Carry this work out with a view to improving the strategy and identifying further research objectives.

1.2   SITE SELECTION

While the research was supported at the head office level, there were problems in identifying a site to carry out work under the third objective which might be acceptable to DOC Conservancies. Areas in which the Department had encountered public relations problems over its possum control work were rejected as possible research sites, along with areas where the Department was engaged in sensitive negotiations over retirement of Crown leasehold land or other matters. During consultation over the research, Conservancies also noted:

- a danger of raising community expectations of what might be achievable in pest and land management through development of participation in the project when it was uncertain if the Department could sustain the involvement;

- the potential for criticism of the Department from local and influential taxpayers and landowners who might see the research as using money which might be better spent on killing possums;

- the potential demands on DOC staff time and having to operate in a different kind of role and relationship with their community than had been occurring;

- doubts over the soundness of the research methodology, in particular its action aspect, and the open-ended/iterative nature of the involvement. In addition, social science and its methods were not generally seen to be 'scientific' (i.e. based on closely controlled experimental design).

In early 1996 a possible site in the Clarence–Kekerengu area north of Kaikoura was identified for carrying out the action research part of the programme. Discussions with the Nelson Conservancy and the Blenheim office on the proposal to undertake the research in the area followed.

Clarence–Kekerengu as a potential site was identified through the author's contact with local Federated Farmers representatives during research in 1994 on public perceptions of biological pest control. At the time, he was asked to provide informal advice on how to foster greater local involvement in a community-initiated possum control programme. The contact was extended in 1995 during consultations being conducted by the Canterbury Regional Council with landholders and other stakeholders in the Kaikoura area over local land management issues. Representatives from the Clarence–Kekerengu area approached the author about difficulties they were experiencing with organising action on pest and weed issues, and asked if he might act as a facilitator, rather than involve an agency which might simply take over.

Given the apparent willingness of this community to act on its own problems with the aid of a facilitator, and the existence of the East Coast Federated Farmers group which would act as hosts, Clarence–Kekerengu was advanced as a potential site for this research project. While some sensitivities regarding land acquisition by DOC were evident, the community generally appeared to have a good relationship with the Department and its local officers, and there was no sign of the public relations problems over possum control efforts that had occurred in other areas. In addition DOC, as a local 'landowner', was a neighbour for a number of the farms in the district.

Following several telephone discussions between the potential hosts and the researchers, a scoping visit was made by Dr O'Brien and the author to the Clarence–Kekerengu area in May 1996. During the visit, they met representatives of the East Coast Federated Farmers group and presented the research proposal. The community representatives provided a briefing on the area and local land and pest issues. Initial agreement was reached about advancing the area as the research site. The author then prepared a detailed draft plan for work for the Department and the community hosts. This was taken to the Federated Farmers group and approved. The Department then commissioned him to undertake work on the third objective in its programme (noted above) in June 1996. Final agreement to begin work in the community was reached with the Nelson Conservancy in September 1996.

2. Methodology

2.1 PROJECT PROGRAMME

The community action research was envisaged as occurring in four phases – beginning in mid 1996 and finishing in mid 1997:

Phase 1: Community response building

This would consist of two exercises: first, canvassing all the property owners/managers of the area to develop a profile of the community and to build interest and commitment to participate; secondly, where community support was evident, holding a community workshop to identify common issues in pest and land management, prioritise and map the incidence of the various problems identified, and initiate a plan for action where possible.

Phase 2: Action planning

Where agreement was reached with the community, facilitate the development of a plan of action through participatory planning workshops.

Phase 3: Implementation of the community plan

Facilitate community planning and discussions where required, and monitor the development and performance of the group.

Phase 4: Evaluation

Carry out a participatory evaluation of the outcomes, and where possible, assess the applicability of the community-based approach to other situations.

The timetable for the work was set by the research team, assuming that support for the Clarence–Kekerengu site would be forthcoming from the Conservancy, and that the community would be able to arrive at and implement agreed action smoothly. As noted previously, there were delays in getting the necessary approvals, and fieldwork began in October 1996.

2.2 ACTION RESEARCH

The approach proposed for this project was that of *action research*, where the researcher/s become actively involved in the situation as facilitators of change and participants in the process. In this project the researchers set out, at the invitation of the community, to actively participate in the development of a rural community to achieve common goals in pest and land management. At the same time the researchers aimed to understand, along with the community, pest and land management in this area in relation to the social dynamics of the community, and to understand how change, if any, was being achieved.

"The concept of action-research has its origins in the work of social psychologist Kurt Lewin (1946) but has since been further developed by numerous researchers. While researchers may differ in their emphasis on action or research, most agree on the cyclic nature of action, followed by reflection, followed by further action." (O'Brien, unpublished research proposal, 1996).

Most conventional research methods gain their rigour by control, standardisation, objectivity, and the use of numerical and statistical procedures. But in action research, the aim is responsiveness—in this case principally to the community, its concerns, and what it might see as problems to be addressed. The work typically proceeds through cycles of action/intervention and reflection, and is therefore iterative and adaptive (Taylor et al. 1995). Chambers (1997) also refers to this type of research as 'action–reflection research'. This process was incorporated in the phasing of the research as outlined above.

2.3   PARTICIPATORY METHODS

A crucial component of the action side of this project was the intention to utilise and therefore model to the community participatory methods for planning and decision making. Such processes and methods have been documented in the rapidly expanding literature in the field of Participatory Rural Appraisal (PRA), also known as Participatory Learning in Action (PLA). (See, for example, Chambers 1997, and Davis-Case 1989, 1990.)

A key principle of PRA is that, in a development or change context, a 'project' participates in the life of the community, rather than the community participating in the life of the project. The researcher/outsider thus becomes a facilitator who assists people to become involved in their development of themselves, their lives, and their environment. The aim is *empowerment*, or the channelling of local people's own capabilities towards an end determined by themselves. A feature of PRA is therefore the development and use of techniques which attempt to balance the power relations inherent in communication, and therefore foster inclusion and participation of locals. The emphasis is on learning, the sharing of knowledge, insights, experiences and solutions, and the forging of partnerships for action (Chambers 1997). Such an approach therefore challenges the researcher/outsider to relinquish institutional power in his/her dealings with the community.

2.4   INTERVIEWS WITH PROPERTY OWNERS

Between October and November 1996, semi-structured interviews were conducted with all the farm property owners in order to build a profile of the community, the properties, and the key pest and land management issues, and to enable the researcher to outline the project and its purpose. Where possible the interviews were conducted with both male and female adult household members together. The interview process was informal and open-ended, with the questions covering the property and its history, the family, farm or other

production, land management issues for the property, local community structure and dynamics, and issues facing the community, including land management and pest problems. The description of the community and its activities therefore relates to the situation on the properties and in the study area at the end of 1996. This exercise was subsequently complemented by an analysis of social statistics on the area from the 1996 Census of Population and Dwellings (conducted in March that year).

3.   Community profiling

3.1   DEFINITION OF THE COMMUNITY

The boundaries of the community were defined through a participatory mapping exercise in which the members of the host group (East Coast Federated Farmers), after discussing the various properties and their owners in the district amongst themselves, drew the boundaries using pencil (and eraser) on to 1:50 000 topographic maps. It was evident that participants had considerable knowledge about the area and its inhabitants, which they constantly cross-checked between themselves as they worked. This process therefore involved negotiation between the members of the group, with social networks being the key consideration for inclusion within the study area, followed by farm boundaries and related geographical features. During the mapping exercise, the pencil changed hands many times.

Through this process the boundaries of the community were defined as the Kaikoura District Council Boundary in the north, the sea to the east, Ohau Point (a coastal feature approximately 12 km south of the Clarence River) to the south-east, the northern ridgeline of the Seaward Kaikoura Range (facing into the Clarence River Valley) to the south, the Clarence River to the south-west, the ridge of the Chalk Range to the west, and Isolated Hill to the north-west (Fig. 1).

The group then identified and located on the map each of the farm properties within the defined area, their current owners, whether they were long-term family farms or not, and the approximate length of tenure of the current owner. Thirty three farm properties and their owners were listed as being in the defined area. Seventeen of these properties were recorded as having been farmed by more than one generation of the same family. Some of the properties were being farmed on a part-time basis. The group also noted which families were related through kinship. Additional small properties were subsequently identified during the interviews with property owners, along with various other residents in the district.

As noted above, this initial definition of the community was based around farm properties which the host group felt fitted into their perception of the 'community of interest' for land and pest management. These properties included operating farms, subdivided properties being developed for plantation
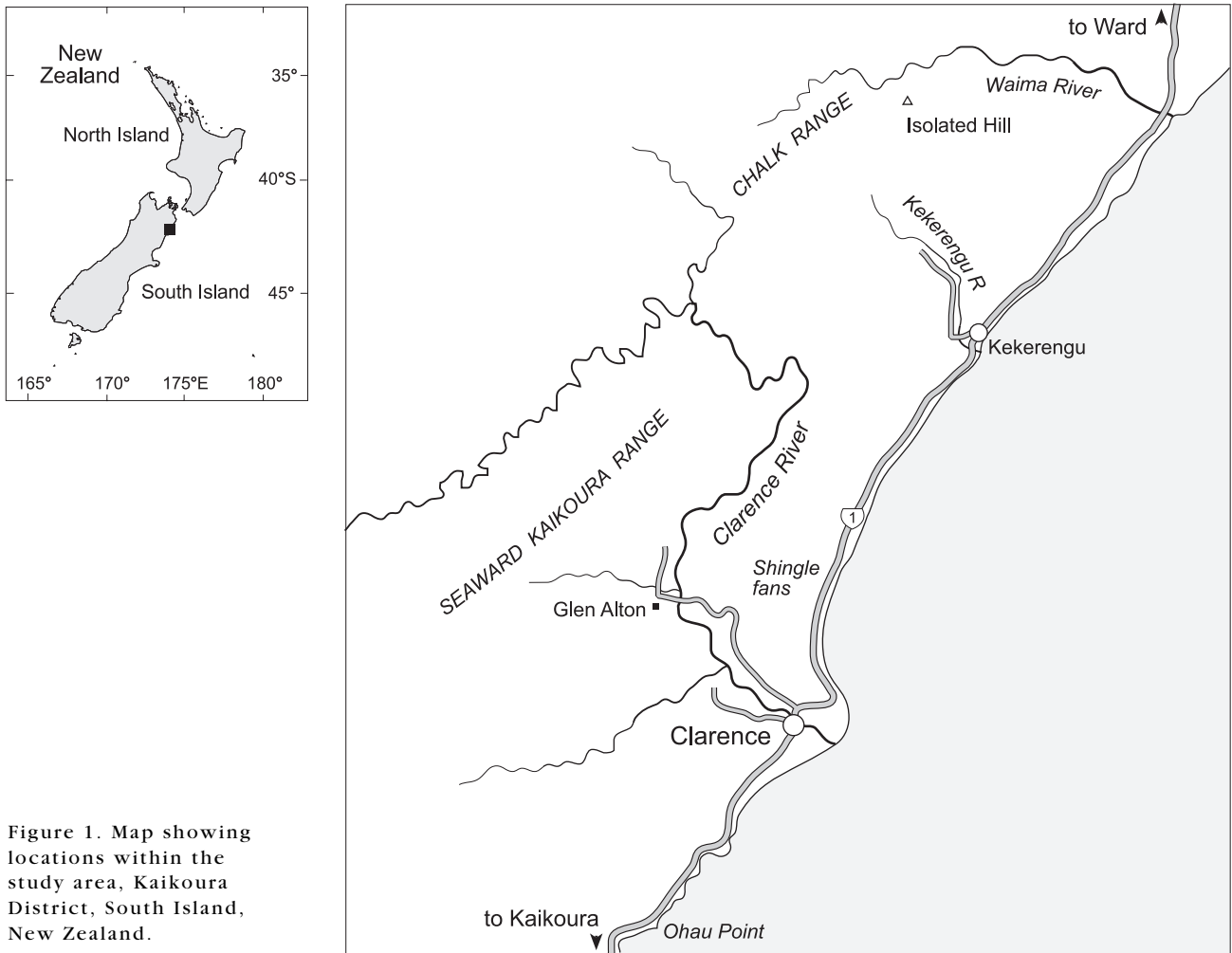
Figure 1. Map showing locations within the study area, Kaikoura District, South Island, New Zealand.

forestry, and a very large high-country pastoral run. The villages of Clarence and Kekerengu also fell within the geographical boundaries, and there was debate within the group, which continued throughout the project, as to whether the villagers should be included in the community project. Reasons cited for inclusion were geographical and social in that, even though they might not be farm property owners, the villagers participated (to a varying extent) in local community activities, utilised local services and resources, and in some cases depended on the farming community for casual employment. Reasons against inclusion in the project were that the village residents were not land managers and therefore would be unlikely to have a direct interest in pest and related issues, and that many were relatively recent arrivals or 'transients'.

At first the Department of Conservation was not included as being within the community, even though it 'owns' and manages land directly adjacent to at least 14 of the farms throughout the district, including on the Seaward Kaikoura range, around the lower Clarence, and in the upper reaches of the Kekerengu Valley and Ben More Stream. In addition, DOC has an interest in the Clarence River bed, which many properties border, and the beach.

As the project developed, the definition of 'the community' was reconsidered several times, with DOC coming to be seen as an important local landowner, and towards the end of the project, the northern boundary was extended to the Waima River.

3.2   STATISTICAL PROFILE OF THE COMMUNITY

The study area, as originally defined, is covered by six meshblocks (the smallest census enumeration area of the Census of Population and Dwellings) within the wider Clarence 'rural area'. The boundaries of these meshblocks generally follow topographical features and established property boundaries, and are therefore useful in getting a fuller picture of the local population. (Note that data provided in meshblock tables are rounded to 3 significant figures, so aggregations, such as for the study area, result in only approximate totals.)

3.2.1   Social characteristics

In 1996, the "usually resident" population of the area was approximately 240, up 15 from the 1991 Census, but still lower than the 1986 (pre-economic restructuring) population of 273. Most of the population loss (approximately 33 persons) can be accounted for in one meshblock, covering the northern side of the Clarence Valley, including Woodbank, Clarence village, and adjacent properties. Even so, between 1986 and 1996 the population became slightly more concentrated in the southern (Clarence) part of the study area.

Compared with the rest of New Zealand, the population had high proportions of pre-schoolers, and relatively few teenagers and elderly people—typical of a farming area where young people leave to attend boarding school and university, and the elderly retire to town (Fig. 2).

A relatively high proportion of the 1996 population was recorded as being Maori (21%, or 51 persons), compared with 14% for the rest of the Kaikoura District. Most were located in Kekerengu and Clarence villages and around Waipapa Bay, a fishing village just south of the Clarence River. Between 1986 and 1996 the number of Maori residents increased by 70% (21 persons), with the increase being concentrated in the Kekerengu area.

Of the 156 persons aged over 15, approximately 3% had a university degree as their highest educational qualification, 30% had a post-secondary or vocational qualification, 33% had a school qualification, and 34% had no qualifications. Compared with New Zealand as a whole, the area had less than half the proportion of those with university degrees, but twice the proportion for vocational qualifications.
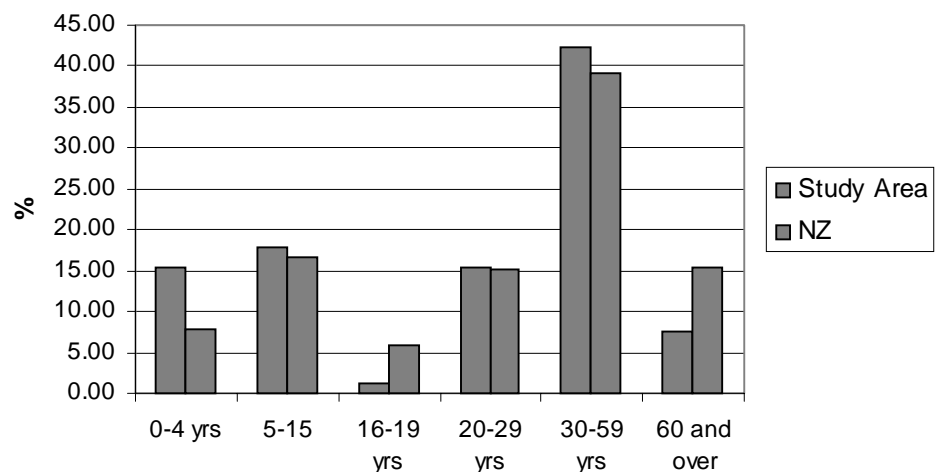
Figure 2. Population of the Clarence–Kekerengu area, 1996 Census.
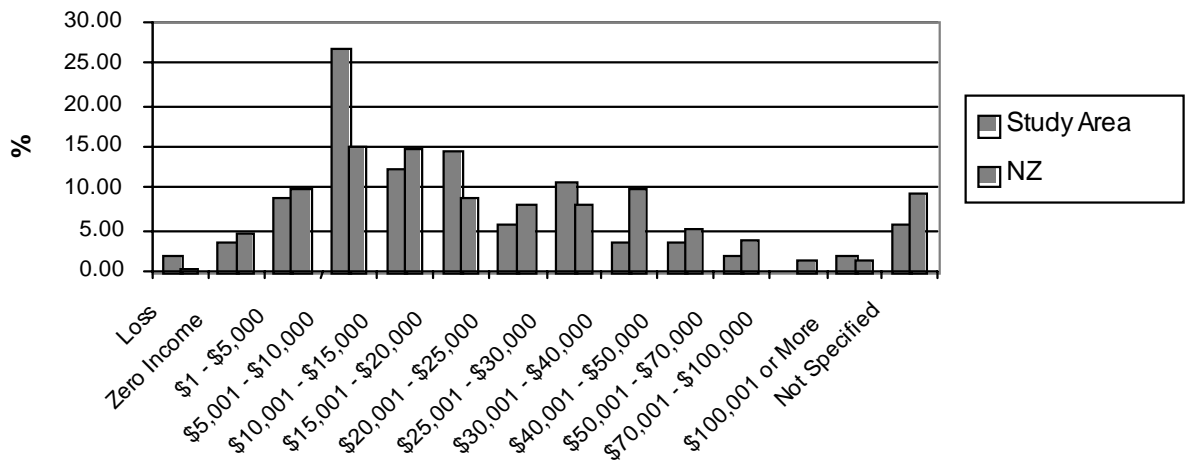
Figure 3. Annual personal incomes for the study population, 1996.

Figure 3 indicates that the annual personal incomes of those in the study area in 1996 were generally lower than for the country as a whole, with a relatively low proportion of people in the higher income brackets, and a higher proportion in the lower brackets, especially under $10,000.

Annual household incomes were not available in about a quarter of cases. However, from the available data, it appears that households of the study area had much lower annual incomes than the rest of the country—around $30,000 compared with $43,000.

The low average incomes can be accounted for in Fig. 4, which indicates that, per adult, the population of the study area had a higher rate of receipt of social welfare benefits, except for National Superannuation, than the New Zealand population. Overall, there were approximately 0.6 benefits paid per adult compared with 0.4 for New Zealand. In 1986 the rate of benefit payment was similar to the rest of the country. In both 1996 and 1986, benefits were distributed proportionally across the area. A notable feature of the study area was the very high rate of receipt of unemployment benefits, making up 38% of all benefits paid in 1996. Between 1986 and 1996 the number receiving unemployment benefits almost doubled, from 18 to 33.
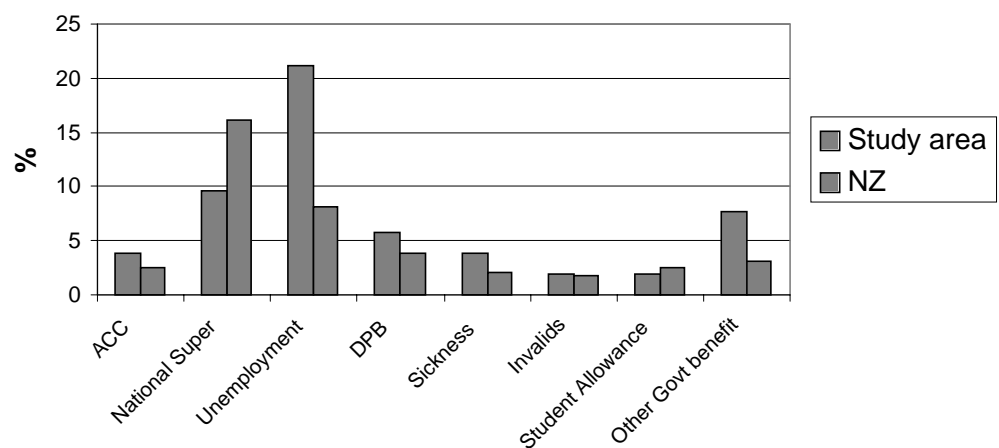
Figure 4. Social welfare benefits received by the study population, 1996.

3.2.2 Households

There were approximately 99 households recorded in the study area in the 1996 Census, with an average of 2.4 persons per household. The majority (70%) were one-family households, 21% were one-person households, and 9% were non-family households. Just under a quarter had families with children aged less than 5 years and 6% had solo parent families.

3.2.3 Work and employment

Between 1986 and 1996 there were significant changes in the local workforce. Overall, the workforce decreased by over 10% (approximately 20 persons), and the number of women in the workforce increased by about 33% (from approximately 36 to 48 persons). There were also major shifts in employment status (Fig. 5). Most notable were the halving of the number of wage and salary earners and the shift from being an employer to being self-employed without employees – complemented by an increase in those working unpaid in a family business. This is consistent with the reported shedding of farm staff on local farms and wives becoming more involved in farm work, and the reduction in the number of government employees resident in the district. However, despite the increase in the number receiving unemployment benefits, the Census noted no increase in the number "unemployed and actively seeking work".

Figure 5. Changes in employment status in the study population, 1986–1996.

The occupational structure of the local workforce remained relatively consistent between 1986 and 1996. As expected, there was a reduction of about 20% (18 persons) in the number who described themselves as agricultural, fishing or forestry workers. This reduction was partly compensated by an increase in the number of clerical and sales workers, possibly reflecting a rise in off-farm employment (Fig. 6).

In terms of industry of employment, between 1986 and 1996 the number engaged in the primary sector (i.e. agriculture, fishing and forestry) fell by about 30%, while there was a significant increase (from approximately 3 to 15 persons) working in the business and community & personal services sectors (Fig. 7). This pattern is consistent with changes in employment status and occupation.
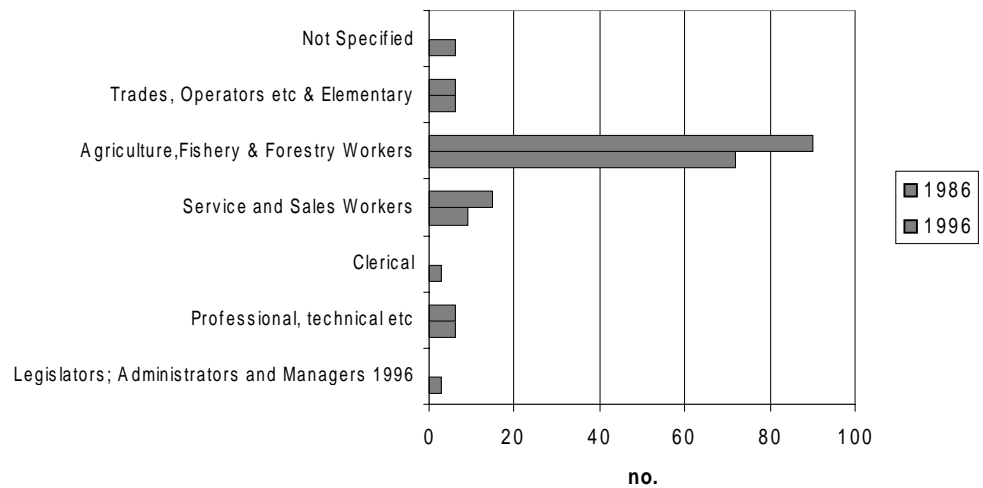
Figure 6. Occupational structure of the study population, 1986–1996.
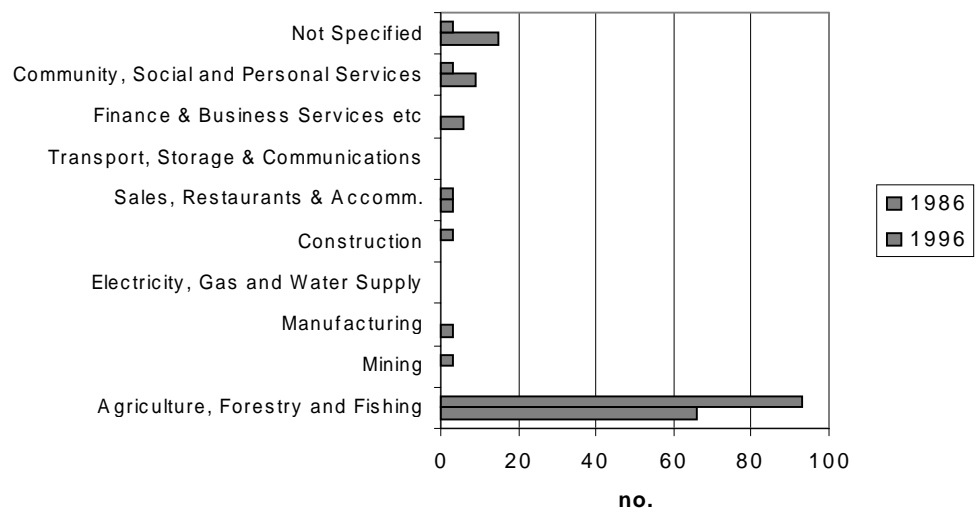
Figure 7. Employment sector for the study population, 1986–1996.

Figure 8 indicates that those in the study area worked long hours compared with the rest of the New Zealand workforce. This is probably typical of a farming district, though it tends to support the claim made by locals that people in the area have relatively little free time for community activities. No comparative data for 1986 are available, though it is likely that, with the reduction in employed farm labour, owners and their partners are working longer hours than in the past. This is discussed below.

3.2.4 Housing

There were just under 100 private dwellings enumerated in the study area in 1996. Approximately 53% of the dwellings were owned by their occupants, 28% (about 30 houses) were rented, and 17% (about 18 houses) were provided free by employers or under some other arrangement. As can be seen from Fig. 9 the proportion of ownership was significantly lower than for the rest of the country. The pattern of housing tenure reflects the reduction in the use of paid labour on local farms over the past 10 years or so, and the freeing up of farm worker housing for rental by retired couples and others.
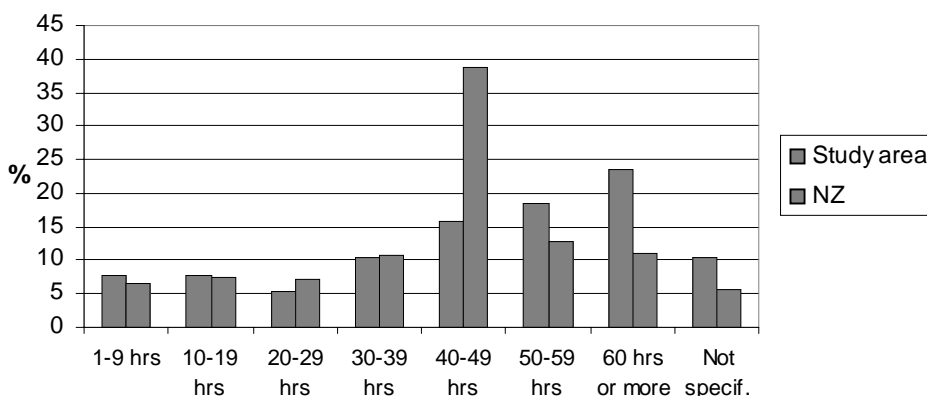
The majority (90%) of the permanently occupied private dwellings in the study area were separate houses, though approximately 9% could be considered temporary accommodation—such as baches, caravans, cabins or tents in camping grounds, or some other mobile or temporary dwelling not in a motor camp—a relatively high number by New Zealand standards. (Such accom-modation made up less than 1% of all New Zealand dwellings in 1996.) These temporary dwellings were located in the Kekerengu and south Clarence areas.

Figure 9. Tenure of dwellings by the study population, 1996.
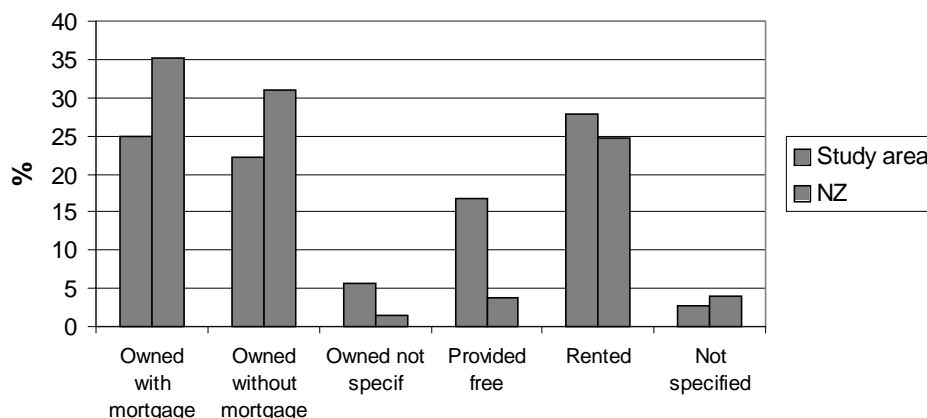
3.3   PROPERTY AND COMMUNITY PROFILE

As noted previously, the household interviews conducted in 1996 as part of phase 1 of the project provided details about each of the farm properties identified as being in the study area, as well as a more qualitative picture of the local community.

3.3.1   The farm properties

The owners of 34 properties were interviewed, 32 of these being from the list developed by the group and two smallholders being identified during interviews. The sizes of properties are shown in Table 1.

Twenty-four (70%) of the properties were being run as full-time commercial farms, six (18%) were semi-commercial or lifestyle farms or farmlets, three (9%) were being developed as mainly forestry blocks, and the remaining property was being leased out for grazing but not farmed by the owner. Twenty-eight of the properties were reported to be sheep and cattle operations, six of which were cattle studs. Only one of the properties over 500 ha was a sheep-only

	NO.	%
TABLE 1. APPROXIMATE SIZES OF LOCAL FARM PROPERTIES, CLARENCE–KEKERENGU AREA.		
Less than 100 ha	5	15
100–500 ha	9	26
500–1000 ha	10	29
1000–2000 ha	6	18
2000–5000 ha	3	9
Greater than 5000 ha	1	3
Totals	34	100

farming operation. Two owners indicated that they also had deer herds. Of those running sheep, the main breeds were merinos and corriedales, though several properties at the northern end were running romneys.

Increasingly the property owners were attempting to diversify their farming operations: seven of the properties had established pine plantations (some also for erosion protection), six had planted fruit or olive orchards, and twelve indicated they had additional income in the form of paid employment, partner's employment, a business enterprise, or investments. Several of the long-established properties had multiple off-farm sources of income.

More 'radical' attempts at diversification were in evidence, such as: a proposed subdivision for an 'eco-village' (involving six or so families practising permaculture production on small plots of land and grouped around a community centre); a proposed subdivision for holiday housing; a commercial trophy-hunting operation on privately owned bush lands; subdivision for invest-ment plantation forestry blocks; commercial bee keeping; a show garden open to the public; and redevelopment of the Kekerengu roadhouse by a local landowner. In one case, a smaller property served as the self-sufficiency base for craft production. The most recent subdivision proposals had encountered opposition from within the community because of concerns about the change in land use and the nature of the community, and the potential impacts on local infrastructure.

For 19 (56%) of the properties, the owners were the first generation of their family on that land. Over one-quarter of the owning families had been farming in the area for three generations or more, though there have been considerable boundary changes, subdivisions, and sales of land over the past 90 years or so. At the time of the interviews, two properties had been sold and were awaiting amalgamation into a single operation, while several others were on the market.

3.3.2 Farm population

From the interviews, the 34 farm properties were the residence of approximately 84 adults, and more than 43 school-aged children—that is, just over half of the population recorded in the Census. At least 16 older children were away attending boarding school in Christchurch or Nelson or undertaking tertiary studies. Because the interviews focused on the identified farm properties, the total number of inhabitants, including the occupants of rented farm cottages and the village residents, was not ascertained from the round of interviews.

A feature of the study area was the extent of generational change that had taken place on local farms in the past 10 years. Most of the farmers were from the 'baby boom' generation and, while some had children studying agriculture or participating in farm work, most of the next generation were not yet old enough to be taking responsibility for running the property. As noted previously, over the past decade local farms had shed or reduced their farm worker staff, and while these people had been replaced by retired or lifestyle settlers who did some part-time casual farm work, the farm-based population had not returned to its 1986 level.

3.3.3   Social organisation

Kinship networks

As mentioned earlier, most of the longstanding farming families of the district belonged to interlinked extended families. This might be expected in an area which had grown through the progressive subdivision of a handful of large properties or runs. Many of the local families traced their origins to these early settlers—in the case of one family to runholders in the mid-1800s, and another to subsequent owners at the turn of the century (see Sherrard 1966).

Figure 10 illustrates the network of kinship relations that existed at the time of the study between 15 of the surveyed households, as reported to the author. This network of kinship relations underpinned much local social organisation and functioning, as discussed below. To maintain confidentiality, alphabetical letters have been used on Fig. 10 instead of the actual names of the households and families, and a matrix of mutual connections has been used rather than a kinship 'wiring' diagram. (The matrix can be read either by row or column, for example, adult members of household E have first cousins within households A and C, and some other relation within household B).

House-holds	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A														
B	◆													
C	■														
D														
E	■	◆	■											
F	◆														
G	◆	❖●			◆	■●								
H														
I								■						
J		■	■											
K	■	■	●		■					■				
L				●										
M										◆				
N														
O														◆

Key: ●siblings ■cousins ❖uncle/aunt/nephew/niece ◆other relative - 2nd cousins etc.

Figure 10. Matrix diagram showing kinship relations between 15 farming families in the study area.

Social structure

Through the interviews it became evident that there was a clear social hierarchy at work locally, with people falling into one of three groups. While descriptions of who might be included in each group varied, there was general agreement on the following:

- The first group was made up of the longstanding interrelated families on intergenerational properties, and those who had attended the same private schools in Christchurch who were maintaining the schooling tradition. About 10 or 11 households were seen as fitting into this group. They were perceived as having well-established and developed farms, generally farming on the better lands of the 'front' (rather than back) country, and relatively equity-rich. Community leaders have tended to come from this group.

- The second group was made up of families which were property owners but had been farming in this area for only one or two generations, of diverse but mainly farming backgrounds, farming on the more difficult country, often less well-off or equity-poor, and with children attending school in Nelson or elsewhere.

- The third group was made up of residents of the two villages (which include fishers, beneficiaries, casual or part-time workers, and some retired people) and other non- farming locals such as those renting former farm workers' or managers' cottages. Many were considered transient residents, though some owned their own homes or small properties. These residents were not well identified by the project host group.

About half of the interviewees reported that there was a clear social division between the first group and the others, with its members tending to socialise together. Because of their family interconnections, contact on community issues had tended to be through the family networks, rather than through the formal groups in which they participated. The second group appeared to have better connections with members of the third group, and were more likely to look to people in adjacent communities for social contact. At the same time, they were more likely not be participating in local community activities and socialised less overall. Within the third group there was apparently quite a lot of interaction and involvement with people and activities in Kaikoura. Members of this group were reported to be quite diverse and to have different lifestyles and values from the farming community, though they were considered by that community to be resourceful in terms of managing to survive in a relatively isolated rural area. As noted, much of the contact between this group and the farming community was through the schools, occasional Kekerengu community centre activities, the kindergarten group, or through odd-jobbing. Some interaction occurred at sports and other clubs at Kaikoura.

About half the interviewees noted that whole sections of the local rural community had disappeared in the past 10 years due to economic restructuring and the down-turn in farming, in particular:

- full-time farm managers and farm workers/labourers;
- rural-based workers such as agricultural contractors, and rabbiters;
- locally based railway and road workers.

These had been replaced by retired people, beneficiaries and alternative lifestylers attracted to the area for its quiet rural lifestyle or for the cheap housing. The Census data reflect these changes.

Federated Farmers

Historically, a key point of social contact and community identity, at least for male farmers, was the East Coast Federated Farmers branch (ECFF) which covers the Clarence–Kekerengu area. In the past, membership was compulsory for farmers, with membership fees collected as a levy on stock sales. One long-standing local noted that Federated Farmers was a 'de facto branch of the National Party', and acted as the main lobby group for the community. Under recently instituted voluntary membership (which costs $250 per year), only about half of the local farmers had remained members. The ECFF group met about three times a year, or more often if there were issues to be resolved. Apparently about three-quarters of the members attended meetings. Traditionally women did not attend Federated Farmers in this area. Many of the established farmers had served as officers of the local branch at some time.

Prior to the project commencing, the ECFF (along with the Woodbank School Board of Trustees) was the only ongoing forum for discussing local issues. With falling membership and an increasing 'issues' focus, many of the interviewees felt that it was no longer representative of local opinion and was becoming less relevant to the overall well-being and development of the community.

Schools

Schools have traditionally been very important foci of rural communities, bringing together the families of farmers, farm workers, other agricultural workers, and non-farming people. In 1996, the one-teacher Woodbank School at Clarence, with a roll of 16, was the only school in the study area. Children of primary school age in the Clarence area mainly attended Woodbank School, while those to the north travelled by school bus to Ward School. The School Board of Trustees representatives were drawn from both the farming and non-farming sections of the community. Community meetings and activities at Clarence were generally held at the school.

The traditional pattern in this area has been for older children to attend private secondary schools in Christchurch, especially Christ's College for the boys. This has meant that long-term residents, in addition to kinship, have been connected through their common education, with many of the present owners or operators of family farms being old boys and girls of the same schools, like their parents before them. Since the 1980s, however, in response to the downturn in farm incomes and the increasing cost of private schooling, more children have attended boarding schools elsewhere, for example, Nelson. Some local families, especially the villagers and rural workers, were sending their children to the Kaikoura high school. Tertiary training and education have tended to have been vocational—agriculture for the men, and nursing and teaching for the women (see Census data on educational qualifications, above). Some reported that there had been an increasing emphasis, especially among the first-generation farming families, on preparing their young people for a life outside farming through a broader university education.

Clubs and societies

Most other local organisations, especially those involving women, had wound down or ceased to operate over the past 6–7 years, including the Women's Division of Federated Farmers, the Red Cross group, and church groups. As mentioned, at the time of this study there was a kindergarten and mothers' group based in Kekerengu. The Kekerengu Community Centre Association was responsible for the local hall and organised two main community functions each year, though in the past there had been reportedly more frequent local organised activities.

Several farmers belonged to a farm discussion group based in Ward. There were volunteer rural fire parties, made up of and organised by locals, at Kekerengu and Clarence, and both had fire appliances and held regular exercises. In 1996, there were no sports or hobby/interest clubs locally, and those wanting to be involved participated in groups in Kaikoura. In the past there had been regular garden, bridge, poker, bowling, tennis and netball groups, but these had largely wound down or disappeared.

At the time of the interview fieldwork, people were generally reliant on informal socialising within their own circles of friends and relatives to meet their needs for social contact.

Neighbourhood

While local people generally regarded the study area as one community, it had two historical geographical and social centres, Clarence and Kekerengu. These roughly correspond to the two river catchments. Within each, people shared the same access roads and remaining community facilities, and broadly similar farming and land conditions. Kekerengu, standing at the junction between Kekerengu Road and State Highway 1, is a more obvious physical centre, with its combined roadhouse, shop and post office boxes (and former petrol station), a village of 14 houses, historic church, community centre, and (until 1997) rubbish dump. People at this end of the study area tended to go to Ward and Blenheim for services, and were connected to the Marlborough telephone network.

Clarence, while having a village of approximately 12 houses grouped along State Highway 1 and a further 4 or 5 houses near Woodbank School on Clarence Valley Road, has no local facilities other than the school and the church. Most of the farms in the Clarence Valley are accessed by the Valley Road, with a second bridge (at Glen Alton) about 7 km upstream of the main SH1 bridge. However, at the time of the study, the Clarence 'neighbourhood' had a split telephone service, with those on the north side (where more people were located) being connected to Marlborough and those on the south side of the river being connected to the Kaikoura network. Telephone communication with neighbours, which is a crucial means of local contact, sometimes required a toll call.

Those located along SH1 between Clarence and Kekerengu associated with both areas, though they tended to emphasise involvement with one community more than the other because of family relationships, friendships, etc.

Other groupings

In addition to common heritage and schooling, other bases for social groupings within the community reported during interviews included:

- life-stage, for example families with infants, older children, younger adults, and, of course, a large group of 'baby boomers' with older children
- common interests such as gardening, and 'social' tennis and cricket
- farmers with common production interests, or in farm equipment pools
- church affiliation.

3.3.4　Changes and trends

Community cohesion

Most of the interviewees referred to the dramatic reduction in social interaction and cohesion that accompanied the downturn in farm prices and farming in general over the past 10 years. In the past, most of the present owners employed a full-time married couple or farm labourer, which meant that wives were less involved in day-to-day farm work and had more time to put into community maintenance. Their farmer-husbands were also more able to take time off to be involved in off-farm activities, or to put time into farm development. In attempting to reduce costs to weather the economic downturn, most farmers in the district shed their farm labour. Wives became involved in working on the farm alongside their husbands. In the interviews, most farming households reported that they were working longer hours than in the past, had become more focused on "maintenance" of the farm operation, and were having to work harder and smarter to make farming pay its way. Some wives had sought off-farm work. With less energy available for organising and maintaining community activities, farm-households, according to the interviewees, had become more inward-looking, insecure, and less willing to take on community responsibilities or get involved than in the past. As one interviewee noted, "people are willing to share the good times, but not the bad".

It appeared to the researchers that, increasingly, property owners were struggling economically, and having fewer of these good times to share. In this situation, it is not surprising that an overall decrease in community unity or cohesion and identity was reported during the interviews. Some believed there was no real community left, and people had become "very individualistic". As outlined below, many specifically noted that one of the local needs was for community revival and development before community-based pest, weed and other land management initiatives could be developed and implemented.

At the same time as the rural downturn took hold, there was a reorganisation of local government, and contraction, commercialisation, and centralisation of government services. Opportunities for participation in local governance and decision-making were reduced, while services once close at hand and controllable were seen as having moved into the hands of city-based bureaucrats (e.g. pest control).

Community composition

Another key local social change over the past 8–10 years had been in the composition of the non-farming rural population, especially that of the two villages. Few of the farming families appeared to be familiar with, or to socialise with, the people from the villages, or even those occupying the former farmworker cottages. During the preparation for this first phase of the work, and

during the interviews with farm families, few of these newer residents were identified to the researcher. Along with a section of the village populations, many were reported to be "transients" with "no long-term commitment to the area", to local farming, the school, or the community, and were therefore not being included in community activities when they occurred.

Changing land use

As mentioned earlier, the rural downturn stimulated efforts by some long-established and newer farm households to diversify their operations and incomes in order to survive or generate a return on their investment in the land. Some of these efforts involved a significant departure from traditional local uses of the land, and had provoked concern over the future of local land use and community identity.

Community wealth

Some interviewees reported that the district was generally less well-off than in the past due to the rural downturn and sustained low commodity prices, and that the general standard of living was slipping. While people were not often forthcoming about their own situation, it was evident that some farms were struggling or just 'hanging on', and that economic viability was a key issue for local landowners. Those with the means were considering acquisition of additional property within the wider district to achieve economies of scale or enable diversification, while others were looking at ways of getting out of farming. One property had recently been sold, because of financial difficulties. The financial problems of some property owners were affecting the management of neighbours' farms, for example in pest management.

3.4   PREVIOUS COLLECTIVE EFFORTS IN PEST AND LAND MANAGEMENT

During the interviews, people reported on various previous community-based projects, including pest and land management. These are outlined below.

3.4.1   East Coast Possum Scheme (1992–1995)

The most important of these community efforts, in terms of the current project, was the locally-initiated possum control programme, referred to as the East Coast Possum Scheme.

In the late 1980s and early 1990s there was a growing local concern, especially by four or five owners of stud cattle breeding properties, over the increasing incidence and perceived risk of bovine tuberculosis (BTb). Various individual and neighbourhood efforts at possum control were initiated. In the Clarence area, five farmers banded together to hire a possum trapper operating on a bounty arrangement over the winter season. This scheme lasted for 3 years, but ran into difficulties over funding and participation. Other Clarence farmers had their own control programmes, with some of the work being funded through the Animal Health Board (AHB) and implemented by the Canterbury Regional Council (CRC). In the Kekerengu area, individual property owners had their

own arrangements. Most of the concern was about the spread of BTb, though some property owners were also worried about degeneration of natural bush caused by high possum numbers.

In 1992 some members of Federated Farmers advocated a more coordinated and collective approach to deal with the possum/BTb problem, and put their proposal to a meeting of farmers north of the Clarence River. All but two of the 22 property owners agreed to fund a 5-year programme in which they would be levied $400 per annum (or a lesser sum for those with low stock numbers). This included properties without cattle—which faced no threat themselves from BTb. The programme was divided into three areas according to priority: four or five properties with high possum numbers in the inland Kekerengu Valley area, then the boundaries of the adjacent properties, followed by the 'shingle fans' (a DOC-owned, unstable, badly eroding area which borders on four farms in the north Clarence area, and the catchment for three streams which cross SH1) and the properties on the north bank of the Clarence River.

Despite some participants' concerns about the use of 1080, aerial drops of poisoned bait were advocated by the CRC as the most efficient form of control in the bush and hill country. To meet the cost of the aerial work, the AHB agreed to top up the farmers' contributions in the first year, with any necessary ground work to be done using local labour. In addition DOC agreed to pay for the poisoning of the adjacent Isolated Hill reserve area and the 'shingle fans'. The CRC took on the responsibility for collecting the farmers' money and organising the control work, since it also had the skills and licence to use 1080. The first year's work was done successfully on the high-priority properties, but there was a financial shortfall which was paid by these property owners on the basis of an agreement that the money would be paid back later by the other participants in the scheme.

In the second year, the scheme underwent a major reorganisation. The priority Kekerengu properties came under a 5-year AHB 'Regional Initiatives Programme' to control and manage possums and BTb, with funding from the AHB, CRC general rates and the Kaikoura District Council (KDC) rates. From the second year of the local scheme, therefore, the voluntary levy became a compulsory CRC charge. At the same time, the CRC received funding under government's Taskforce Green for a team of three workers to carry out ground control work over two years. This team began operations in the Kekerengu area and worked south. However, they did not complete all of the properties. In terms of possum control, the work done was considered by most interviewees to have been successful and the BTb threat was considerably reduced. Many of those in the original scheme, though, were critical about the efficiency of the Taskforce Green effort.

A major concern among the farming community was that they had lost the initiative and overall control over their own project. As one farmer noted, *"the farmers got lost in the process"* and ended up having little direct involvement because the AHB and CRC had taken it over. Differences of opinion over how the scheme had evolved, and the repayment of the cost of the overrun in the first year led to local tensions. Though the repayment problem was resolved during the period of the fieldwork for this project, many farmers expressed reservations about outside agency involvement in future community-based efforts in pest and land management.

3.4.2 Other projects

Two other previous community projects are worth noting for their reported success. The community-owned water supply scheme for properties north of the Clarence had been operating successfully since the 1970s, with individual property owners taking responsibility for maintaining that section of the supply line which crosses their land. In recent years, however, maintenance work had fallen behind. The second of these local projects was the local dog-dosing programme, in which the ECFF purchased and distributed the dosing drugs (including those for dogs in the villages) for dosing according to an approved schedule. This ongoing project was generally considered a success by the organisers.

3.5 BACKGROUND COMMUNITY ISSUES

It was recognised by the researchers and community members alike that current or previous issues might affect the potential for the community to come together to act on pest and land management problems. A number of these have been touched on above. Some background issues related to central or local government, while others tended to be confined to sections of the community as outlined below.

3.5.1 State acquisition of farm land

Following Cyclone Allison in 1975 and a follow-up survey of erosion in the Kaikoura area by the Marlborough Catchment Board, the then Department of Lands and Survey purchased one of the badly affected properties in order to implement erosion control work. At the time, local farmers protested at what they saw as government interference in private land management, and took the purchase as a signal of a growing loss of control to the state. Approximately 400 ha of the worst land was retired from grazing, and the erosion problem was reduced through tree planting. Some years later, part of this land was sold on the open market. At the time of state-sector reorganisation, the remaining land was transferred to DOC, including the "shingle fans" described above. At the time of this study some locals still saw the continued presence of the state, as a landowner in a long-standing farming area, as a threat.

Despite these concerns, a number of farmers in possession of significant areas of native bush had investigated or entered into various DOC programmes for retiring such land, or selling it to the Crown for conservation purposes.

On the same theme, a 1940s compulsory acquisition of land by government for postwar 'rehab' farms by subdividing existing sheep runs (owned by established families) had not been well received by some locals. Some interviewees suggested that those who took up the new farms were still not fully accepted.

3.5.2 Local government boundaries and identity

Following the reorganisation of local government in 1990, the study area became part of the new Kaikoura District and the Canterbury Region. This was opposed by some members of the farming community, who campaigned

unsuccessfully to have the area included in Marlborough. At the same time, the district lost its rabbit board. The Canterbury Regional Council had attracted ongoing criticism from a section of the community, especially over the organisation and delivery of various services formerly provided locally and by the Marlborough Catchment Board (e.g. pest management). At a national level, the identification with Marlborough was reinforced when the area was included in the same electorate as Marlborough when the boundaries were redrawn for an MMP parliament.

While relationships between CRC field officers and the community were reported as good, many property owners complained that, in these days of user-pays pest control, the CRC service was too costly and inefficient, and represented a monopoly, especially with its legal control over the use of 1080 poison. It was also subject to criticism over its control of pests and weeds in the riverbeds, which many believed was its responsibility.

3.4.3   Access issues

At the time of the interviews, property owners in the Clarence area were attempting to resolve problems of access to the properties on the south bank above George Stream. The issue centred on the replacement of the deteriorating wooden swing-bridge at Glen Alton, which was considered unlikely to bear the loads expected from the development of forestry on the lands of the recently-subdivided Glen Alton farm. KDC had proposed developing an existing paper road along the south bank, but this was opposed by some owners because they feared it would disrupt the operation of their farms, and expose their properties to unauthorised public intrusion, especially by hunters. Others feared that the substantial costs of a new bridge would fall on only a few properties dependent on it. The issue was eventually resolved when community members, working with the KDC, secured public funding for a new bridge in 1997.

3.5.4   Changing land use

Private subdivision and development proposals in the Clarence area were also a source of local debate. Some were not keen to see replacement of a potentially economic farm unit with small forestry blocks, and the potentially increasing numbers of smallholders. Opposition was also being expressed to proposals for the development of an alternative community and eco-village.

3.5.5   Social distance and cohesion

Karen Jones has noted (1995, p. 8) that, "the diversity in rural communities is often hidden by a need of community members to assume a collective identity by believing they are socially equal in theory, if not in reality. Such equalities seldom exist, but communities develop a set of strategies to protect the illusion, and thereby a sense of social cohesion, and a sense of solidarity are maintained in the face of very real discrepancies in wealth and power".

Through the interviews, it was clear that there were perceived divisions and social distance between sections of the community, with identifiable in-groups and out-groups. These divisions had generally resulted in social avoidance (rather than open conflict), for example, withdrawal from or non-involvement in the local branch of Federated Farmers, non-inclusion or non-participation in social

events, or an increasing tendency for people to spend their spare time away from the area. Some said that decision-making processes in the ECFF were less than democratic, and adequate consultation was frequently lacking, leading to problems with previous community efforts to secure agreement and action on issues. In other words, they felt disempowered. Others expressed concern that the lifestyles and values of the established families were regarded as a de facto standard for the community, and that these families assumed a position of 'natural authority'.

These patterns of relationship appeared to have alienated some altogether, and caused suspicion of peoples' motives even when attempting to act sincerely for the general good. Such divisions developed out of a combination of the 'culture' of the area, particular incidents or events, and even personality clashes. Tough economic times and increasingly busy lives amplified some divisions and led to a reported decreasing sense of community cohesion and mutual reliance.

As Storey (1997) has noted, in small communities where homogeneity is assumed, and people believe that there is an underlying ethos of mutual caring, it is nevertheless common for people to avoid each other so that they do not have to confront the differences that in fact exist. In this way, in the absence of agreed mechanisms for mediation, the serious risks and consequences of open conflict or hostility can be managed. In this community, if open conflict on an issue occurs, a local intermediary may step in or be called upon to mediate.

Overall, while the majority of those interviewed were involved in farming and had much in common, there appeared to be more heterogeneity of lifestyles and values than they generally acknowledged. Some felt that the locals needed more opportunities to come together and get to know each other better, and believed this would help break down the social divisions and distance that had built up and that were serving as a barrier to community development and wellbeing. They felt, like many others, that any community group which might develop out of this project should address this issue.

4. Building a community response

4.1 THE PRESSURES FOR CHANGE

Interviewees were asked what they considered to be the main land management issues for their property. A total of 214 comments were volunteered by the 34 property owners. They were then asked what they thought were the main land management issues facing the community as a whole, and thirty of the households provided a total of 121 comments. The responses are listed in Table 2, and provided in detail in Appendix 1.

Overall, the main issues for individual property owners were rabbits and possums, various weeds, including gorse emanating from the Clarence and Kekerengu riverbeds, and erosion. The same issues were seen as relevant to the community as a

TABLE 2. LAND MANAGEMENT ISSUES REPORTED BY PROPERTY OWNERS, CLARENCE–KEKERENGU AREA.

	ISSUES FOR THE PROPERTY % OF COMMENTS (N=214)	ISSUES FOR THE COMMUNITY % OF COMMENTS (N=121)
Pests		
Rabbits	21.5	23.1
Possums	13.5	9.1
Ferrets	4.2	2.5
Unspecified & other pests	5.6	2.5
subtotal	44.9	37.2
Weeds		
Thistles	5.6	0.8
Gorse	4.2	5.8
Nassella tussock	3.7	2.5
Broom	2.3	1.6
Unspecified & other weeds	5.1	7.4
subtotal	21.0	18.2
Land management		
Farm management	6.1	0
Erosion/slipping	5.6	5.0
River aggradation	3.7	5.0
Planning & legal	3.7	0
Access	3.3	2.5
Environment	2.3	11.6
Other	9.3	11.6
subtotal	34.1	35.5
Social		
Community well-being/development	0	9.1
Total, all issues	100.0	100.0

whole, along with issues of longer-term environmental sustainability. These problems were seen as requiring collective or coordinated action, and to achieve such action community development and coherence had to be addressed as an issue in itself. It is interesting to note that the same priority issues were identified in interviews with KDC, CRC, and DOC officers.

4.1.1 Pests

The build-up in rabbit numbers over the 1994–96 period was seen as the biggest local land management issue. This was accompanied by a concern over a few properties where the owners lacked the material means or inclination to undertake more vigorous rabbit control, and a problem of apparent lack of control work on areas of public land. The latter included the Clarence River bed, beach front, areas of DOC land, and the KDC's pine plantation near Clarence. The concern here

was that, under the user-pays approach to pest control, farmers were having to deal with their neighbours' migrating problems as well as their own. Monitoring by the CRC had shown there was a growing rabbit population, and it had carried out poisonings in the Clarence area, including on the DOC lands. However, some farmers were only able to afford limited rabbit control work, and there had been subsequent legal difficulties resulting from cost overruns on CRC work. Differences in control efforts were leading to local tensions and to concerns over how to best achieve district-wide control.

The reported concern over possums and ferrets related mainly to the ongoing threat of BTb. Most felt that the earlier crisis was being largely brought under control by the community/AHB/CRC programme, but stressed the need for ongoing follow-up.

4.1.2 Weeds

Gorse and broom were particular issues in the Clarence area, with the problem said to be the waterborne and airborne plant materials from the upper Clarence area becoming established in the riverbed and then spreading to adjacent farmland. Most locals were unclear as to who was responsible for weed and pest control in which parts of the riverbed.

Nassella tussock was raised as a matter of local concern during initial meetings with the project host group. About a quarter of the property owners mentioned it during interviews, indicating they knew of patches on their own or neighbouring properties and that these represented an increased threat to the district.

About a quarter of the property owners reported they were having to watch or deal with either variegated thistle or nodding thistle.

4.1.3 Other resource management issues

Erosion featured as an important individual and community issue. Over one-third of property owners referred to problems of slipping on their land and elsewhere in the district. Such slips usually accompanied very heavy rains or storms, and have caused extensive damage to farm and public infrastructure. Some owners were attempting to deal with slipping by fencing off the most erosion-prone faces of hills and gullies, and then planting poplar poles or pines. One-quarter of farmers also referred to river aggradation problems. In the Clarence Valley, eroding side streams were bringing heavy loads of shingle into the main channel, and there was an increasing problem of shingle deposition on pastures adjacent to these streams and on the river flats. The problems of road washouts and the replacement of the Glen Alton bridge were causing concern over security of access.

In the Kekerengu Valley the same stream processes were at work, and the aggradation problem was sufficient to cause blockages of channels under local road bridges. Many of those who raised this issue felt there needed to be a coordinated effort to deal with the problem, and were frustrated at the reported lack of action by the district council. Related to this was the community issue of the Kekerengu rubbish dump, located in the riverbed. Over one-quarter of the households felt the dump should be closed for environmental and public health reasons, and a new system for waste management should be developed for the community.

Environmental issues were not widely referred to in relation to individual properties, but emerged as important for the community. In addition to the rubbish dumps, about one-third of respondents felt that the issue of retirement from farming of native forest and important landscape features should be addressed. This was related to the issue of the environmental sustainability of some current farm practices, such as the burning of regenerating bush, and the running of particular sheep breeds and high stock numbers, which were believed to be creating favourable conditions for the development of weeds and rabbits.

About one-fifth of the respondents felt that the Resource Management Act was putting undue restrictions on their land development options (e.g. subdivision, plantation development), or right to farm, though they did not feel this was a district-wide issue. Four property owners admitted that one of their key issues was farm economic viability.

4.2   RELATIONSHIP AND PARTICIPATION BUILDING

4.2.1   Farm visits and interviews

In addition to allowing the interviews to be conducted, the household visits provided the opportunity for the researchers to establish personal contact away from the constraints of a public occasion, to discuss the purpose of the project, to encourage the family to participate, and to get their ideas on the best ways to bring the community together. In the interests of fairness, it therefore became important that the researchers visit all the land-owning households identified by the hosts.

These visits also enabled the researchers to assess the risks and opportunities for fostering a community-based project in this area, to consider how to deal with some of the risks, and to assess whether a project had much chance of progressing.

4.2.2   Contact with non-farming residents

In addition to the household visits, the researchers organised meetings at Clarence and Kekerengu for the residents of the villages. A week prior to the meetings, the host group carried out a letterbox drop of a brochure introducing the project and inviting each resident to come and discuss what they saw as the issues. Posters were also put up at the Woodbank school and the Kekerengu store. However, only two people attended the Clarence gathering (one of whom was a landowner and had been interviewed previously). The discussion, however, proved valuable for mapping the networks of local relationships and gaining some history of the Clarence neighbourhood. Unfortunately, no-one attended the Kekerengu meeting. Later, as the project progressed, personal contact was made with some villagers, and several households were visited and local issues discussed. These contacts felt that the initial low involvement by the villagers mainly reflected a lack of identification by them with the expressed focus of the project (i.e. land management issues) which they saw as being about farming.

Another gap in the researchers' contact with the community was discovered later, namely with the newer non-farming occupants of the former farm workers' houses. This gap was partly due to the oversight of the host group in their listing of local residents, and partly due to lack of time to locate these residents and make the necessary home visits prior to the first workshop in December 1996.

3.3.3 Assessment of the potential community involvement

At the end of the interview fieldwork, those aspects or features of the community which supported moving to the next stage of the research were weighed up against the risks.

On the positive side there were:

- an historical sense of community identity based on a long-term connection and familiarity with the land and its problems;

- reasonable homogeneity in the type of farming and land use;

- a commonly expressed attachment to the local lifestyle and environment;

- strong networks of social relations and friendship, especially among women;

- a relatively stable farming area and population;

- a history of positive experiences of working together on issues and of people willing to champion issues and causes;

- a wide recognition that the community needed re-energising;

- a generally shared view that there was a need for a more broadly representative and participatory forum for the community;

- a shared perception of the key pest, weed and land management problems facing the area;

- the invitation from community representatives for the researchers to work with the community; and

- an almost universal willingness to at least attempt a community-based approach to considering local issues, facilitated initially by the researchers (despite their affiliation with DOC).

On the 'risk side' there were the following:

- a relatively strong sense of class and social division within the community;

- the marginalisation and non-involvement of the village and non-farming residents in the 'community', and in the research project to that point;

- underlying, unresolved social tensions, some based on short-term issues, others on longer-term divisions;

- some scepticism about the proposal to initiate a community-based approach to dealing with issues;

- a lack of familiarity with participatory approaches to meetings and decision-making;

- a general low level of community energy, and inward focus on farm viability;

- the prevailing independent 'do-it-yourself' ethos of farmers, who sometimes reported being uncomfortable with working in groups; and

- the potential for conflict over rabbit control arising from a planned CRC pest management meeting with farmers in the Clarence area (see below).

Two key factors indicated more chance of success than failure in advancing the project to the first community workshop:

- the apparent commonality of concerns and perceived priorities; and
- an apparent willingness to come together to jointly explore these concerns and possible ways of developing and implementing solutions.

4.4.4 Canterbury Regional Council rabbit control programme

In the short period between the interviews and the proposed community workshop, the local CRC pest control officer, with the help of the local representatives responsible for liaison with the Council on pest management, called a meeting of the Clarence farmers to report on the Council's spring rabbit population monitoring, and to stimulate control work by individual owners over the coming summer. Prior to the meeting, the CRC had sent out reports and maps showing rabbit densities to each property owner. Thirteen farmers attended—almost all of those affected. The researcher was present as an invited observer (and later held discussions about local pest problems with the CRC officer concerned).

The CRC officer confirmed the problem of a rapidly-expanding rabbit population on local farms and public lands, and outlined various options for tackling the problem. The rabbit densities on various properties were identified. He also outlined the likely programme of 1080 poisoning, and possible costs, which the Council would be obliged to initiate in the following autumn if rabbit numbers were above the set threshold, as determined by monitoring work scheduled for February. Various options for addressing the rabbit problem were discussed by the participants, including a community-based effort. Suggestions for such an effort (relevant to this research project) included 'working bees' on each property, hiring a full-time rabbiter for the district, applying for government assistance through Taskforce Green or another scheme, collective purchasing of rabbit poisons, and a field day to learn about various control techniques and the use of poisons. Each of these received a mixed response, though the majority agreed to make a bulk purchase of a particular pesticide through the ECFF, with the actual control work left up to each farmer. Some were keen to avoid the costs of undertaking additional control work at all, and wanted to wait until the decision on the introduction of the biological control agent rabbit calicivirus (RCD), due in mid-1997, was made. However, this strategy was considered too risky by both farmers and the CRC.

From the point of view of this project, it was apparent that some were very uncomfortable with the notion of a community-based approach to pest management (advocated previously by some members of the ECFF), especially working bees, and felt each property owner should address their own problems according to their capacities and circumstances. Community approaches were recognised as having considerable merit, but also seen as requiring significant effort to organise. Given that rabbits were identified as the main local land management issue during the interviews, this outcome seemed to present the researchers and the project with a considerable challenge for the forthcoming workshop and for initiating community action on issues.

4.3 THE FIRST COMMUNITY WORKSHOP: DEVELOPING A SHARED VISION

4.3.1 Workshop design and implementation

The second task planned for this phase of the project was the convening of a community workshop to explore the various land management issues, and to sketch out a plan of action for involving the community and for responding to the main issues. Planning for this workshop was done in conjunction with the host group, and incorporated suggestions received during the household visits. The aim was to involve as many of the people of the district as possible, including partners and non-farming residents.

Timing of the workshop was crucial, since the aim was to hold it as soon as possible after the interview round, when interest in the project was high, while avoiding potential clashes with school breakups and other pre-Christmas events. It also had to take account of the CRC's meeting on the rabbit problem, scheduled for the second week of December. The workshop was thus set for the morning of Saturday 14 December 1996, to be followed by a community barbecue.

To ensure a good turnout, each property owner was contacted by the researchers by mail. This was followed up by personal contact, including with the villagers and other residents, by members of the host group. To enable women to attend, child care was provided on the day. DOC field officers from Kaikoura were specifically asked to attend in their capacity as managers of the local DOC estate, but no other agency representatives were invited.

4.3.2 Workshop process

The workshop included:

- a briefing by the researchers and the host group on the background to the project;
- an outline of work done to date;
- a briefing on the nature and purpose of community-based resource management/landcare groups and their formation;
- workshop exercises to elicit people's views about farming and the community, with discussion on the responses and issues emerging;
- small-group workshop sessions on what people would want from a community/ landcare group, what it should do, and what issues it should address as priorities, with reporting back;
- a plenary meeting to decide on forming a group, and selection of a convening committee to work through the workshop findings and formulate a draft plan of action.

Several types of participatory exercises were incorporated into the workshop programme. Each exercise had a visual and action component, and was intended to enable sharing and learning, minimise opportunities for 'grandstanding', and enable those less willing to speak out in public to express their views. All proceedings were recorded. With the exception of two families, all of

the farming households which were approached and interviewed were represented at the workshop. The senior DOC field officer attended. However, no local non-farming residents attended.

4.3.3   Workshop outcomes: a shared vision

As might be expected, the first of the group exercises (sociograms), which focused on the participants' attitudes to farming and the community, showed there was considerable variation in how the participants were feeling. With regard to farming, the general tenor was one of a love of farming and the lifestyle, but pessimism over the current economic situation and the long-term viability of their operation. Views of the state of the community tended to be more positive, but people generally signalled a concern over the lack of 'get-togethers', loss of direction and focus in community life, and lack of positive connection with people in the villages. Most felt that it was important to try to bring the farming and village people together.

For the second exercise, the participants broke into two smaller groups. On the question of the purpose of a local community or 'landcare' group, each of the groups independently concluded that it should be about:

- community involvement and belonging; and

- a means for organising action on issues.

Both smaller groups were in accord on the main foci for a community/landcare group: weeds and pests (especially rabbits); erosion control; conservation issues; and representation/political lobbying. Possums and BTb, as a specific issue, were not given high priority.

Following a general discussion and a vote, there was almost universal agreement to establish a community/landcare group. Several people said that a group should not be allowed to simply become a means for pressuring individuals into certain actions. An interim steering committee of five (with the right to co-opt further members) was formed to formulate an initial plan for a land and resource management (landcare) group, which would be put to a follow-up community planning workshop to be facilitated by the researchers. Reporting back was set for March 1997. The steering committee was keen to advance this initial work under their own steam, taking suggestions and ideas from whoever offered them, and only calling on outside assistance if it felt it was necessary. The committee comprised two women and three men, representing both Clarence and Kekerengu. Three of those elected to the committee were active in the Federated Famers group (two of whom had been part of the initial approach to the researchers to undertake the project), and two had previous involvement with community activities.

Subsequent to the workshop, a report on the proceedings was prepared by the research team and sent to the steering committee.

At the end of this phase of the project the research team had therefore:

- established a good working relationship with the host group;

- met personally with all of the farming community on a household basis;

- developed a comprehensive picture of the community and its land management and social issues;

- convened a workshop in which almost all the local property owners had participated; and
- assisted in establishing a framework for a community-based approach to dealing with local issues.

At this point the team was, as laid out in the project design, in the position of waiting for the steering committee to deliberate on the workshop outputs, suggest parameters for a community group, and define the next steps in its establishment.

5. Developing community action

As noted, proceeding with this next phase of the project, which called for the team to assist in the development of an action plan for community-based pest and land management, was up to the community.

5.1 THE NEED FOR INTERVENTION

Follow-up discussions in March 1997 with the convenor of the steering group focused on the need to co-opt additional members, and a request for the researchers to assist in facilitating committee consultations. Given the phased nature of the research project and its funding milestones, the committee was asked to put this request in writing. However, by April 1997, the steering group had failed to meet, and the request had not been acted on. This situation continued until July.

During this period the farming community had been busy with rabbit control work, including collectively purchasing pesticides and organising a field day on their use. As anticipated, the CRC had carried out rabbit population counts to assess the impact of the property owners' own control work over the summer. Rabbit numbers were found to be still high. The Council therefore planned and implemented a coordinated and compulsory programme (specified for each property) of aerial 1080 poisoning, including properties recognised as having a problem in the previous year. This work on each property was paid for by the respective owner, and DOC paid for control work on the 'shingle fans', riverbed and the beach. Some local cooperation occurred over stock manage-ment (since stock must be removed from poisoned areas for at least a month) and laying out of markers for the aerial sowing of poisoned carrots.

In July 1997, the researchers met with individual members of the steering committee, and with the committee as a whole, to update on local events and changes in the community, assess local commitment to the project, and secure a decision on whether to proceed with the next phase.

Various local changes and events were reported as having transpired over the previous six months, including:

- Two farming households in the possum-prone Kekerengu area had moved away (as anticipated during the interview round) and new owners and a manager had arrived.

- One whole farm and part of another had been sold to a Marlborough company to enable development of a hydro-electricity scheme (involving an intake on the Clarence river, a tunnel tailrace and generating plant), and the former owners were expected to move to a farm outside the district in the next six months.

- A smallholding at Clarence had been sold and the owners were leaving the district.

- Five other farms were on the market.

- There had been farm-staff changes, and significant turnover among those renting local cottages and village houses.

- The rabbit problem had been brought under control by the CRC's control programme, and this had eased some local tensions. The Council had experienced some opposition to the use of 1080 (from those who had expressed concerns about this during our interviews). However, CRC had been successful in maintaining good working relationships with locals.

- The issue of payment to the CRC for previous rabbit control work had been resolved with the relevant owners in the courts.

- There had been further AHB-subsidised possum control work on the priority Kekerengu properties.

- The KDC had indicated its intention of closing the Kekerengu and Clarence rubbish dumps.

- The ECFF had met twice, and the chairmanship had passed to another member (who was part of the original host group and from one of the district's long-established families).

- Potential emerging issues included the definition of, and planning for, 'areas of ecological significance' in the KDC district planning scheme.

- The level of energy in the community was reported to be even lower, with community members waiting for each other to act.

- The lack of progress of the steering group had also allowed time for doubts to creep in from some quarters, including concerns about a community group being used to coerce others into particular lines of action, and fears about DOC's and the researchers' agenda and influence.

The committee expressed its desire for the researchers to act as outside facilitators in the development of a landcare group. To help move the project along, the committee decided to take on further members, organised to distribute a summary of the workshop outcomes, and hold a further community meeting to discuss directions for the group. It also felt it needed to put forward project ideas to activate the community, such as a mid-winter sports day and party, action on the rubbish dumps, or a weed and pest project. It expressed a need to learn more about the activities and operations of landcare groups elsewhere in New Zealand. Information and literature on the latter, and contact details for other groups, were provided by the research team.

Because of the slow progress of the steering committee in the first half of 1997, project funding had to be re-sought within DOC, and for a period it was not

clear if the project would be able to continue. This caused further delay and uncertainty about the researcher's ongoing involvement with the community.

5.2 DEVELOPING THE CAPACITY FOR CHANGE

The expanded steering committee (10 persons) met again in August 1997. Deliberations were conducted in a workshop facilitated by the researchers, using brainstorming, and priority setting exercises. The community workshop outcomes were examined and four potential 'catalysing' projects were considered:

- a collaborative weeds mapping exercise and coordinated control/eradication programme;
- community input to the district plan, especially on areas of ecological significance;
- coordination of follow-up rabbit control work; and
- dump closure and a replacement waste management system.

Each of these was assessed against the agreed purpose and action-foci for a community group, including:

- the potential to include all sections of the community (including the non-farming residents) without aggravating existing sensitivities;
- the overall achievability (i.e. within available resources) and therefore ability to encourage future participation; and
- fulfilment of a priority need.

The steering committee therefore opted to recommend a project "to develop a waste management system which is acceptable to the whole community", with the objectives of:

- cleaning up the two dumps;
- examining and deciding on new sites, if appropriate;
- recycling and finding ways of reducing waste production;
- education on chemical and plastics disposal, and using outside expertise to learn about how other small rural communities dealt with their rubbish;
- finding ways to deal with rubbish coming to the dumps from outside the district;
- keeping costs down on any new systems; and
- promoting community needs and views to the KDC and CRC.

This meeting marked a turning point for the development of the community/ landcare group. While the direction being set by the group did not appear to directly relate to DOC's original goal of community involvement in weed and pest management, it was clear that, once activated, the community was choosing a path which had the potential to progress towards this goal. At this point the researchers' role, in terms of action research, was to continue to facilitate the community development that was occurring, including assisting with the community's own chosen project, to recognise that the process was going in a direction determined by the community itself, and to accept the outcome.

5.3   ACTIONABLE FIRST STEPS

With a clear focus for action, the steering committee members became activated, and rapidly organised a community meetin to discuss their proposal. This community meeting took place in late August and was attended by approximately 25 people, including three non-farming residents and three newcomers. Those present endorsed the committee's proposal, and an interim chairperson/coordinator and secretary were selected (both of whom had been active in promoting the need for a local landcare group), with the job of investigating options for local waste disposal and liaising with KDC and Kaikoura Wastebusters, a Kaikoura-based community organisation involved in recycling. Other local matters, such as the organisation of the Clarence firefighting party, were also discussed.

This led, in October 1997, to a community-wide consultation, at Kekerengu, with officers and a councillor of the KDC, and a representative from Kaikoura Wastebusters who had been invited to speak on recycling. On its own initiative, the steering group prepared and distributed to every household, in advance, a newsletter on the development of the community/landcare group, along with a notice of the meeting with KDC and the issues to be discussed. This mid-week meeting attracted 19 locals, including 9 women, 3 non-farming residents, farming people who had not previously attended any of the meetings, and a new resident who was keen to become involved. It was chaired by the new chairperson, and attended by the researchers. Options for disposal of waste, rubbish collection services, and recycling were presented by the guest participants and discussed, along with management of the closure and cleanup of the existing dumps. This was followed by discussion on how to advance community consideration of, and action on, the various waste options, and the formal constitution of the new community/landcare group. To address these matters, an end-of-year community workshop and social gathering was set down for the first week of December, to be facilitated by the researchers.

As with previous meetings, the researchers took notes and held an informal debriefing with committee members on meeting processes, how to improve participation, and the issues raised. The research team also discussed issues and the progress of the group—part of the reflection component of the action research process.

The steering group subsequently negotiated with the KDC for a 6-month trial for a district rubbish and recyclables collection service, with the former to be paid partly out of rates and partly by the households through the purchase and use of special bags and labels. Dates for the closure of the dumps were agreed.

Following the meeting with the KDC, a further newsletter (under the banner of the 'Clarence/Kekerengu Community Group') was prepared and distributed by volunteers. The newsletter carried a notice and agenda for the end-of-year gathering. As with the gathering a year previously, child supervision was to be provided.

5.4   THE SECOND COMMUNITY WORKSHOP

The objective of this second workshop was to get formal endorsement from the community for the new group, to decide on the name, structure, and longer-term steering committee membership, and to decide on future projects. The research team also wanted to clarify its ongoing role. Thirty-five adults attended, among whom were four new 'village' participants and thirteen women, along with three or four youth. The author acted as a facilitator on behalf of the chairperson as part of the ongoing aim of modelling participatory methods.

Details of the waste collection service and its operation were outlined and endorsed by the meeting. A proposal from a participant to name the group 'the East Coast Community Organisation (ECCO)' received universal acceptance. Through brainstorming and discussion (rather than voting) the participants arrived at a consensus on the key parameters for ECCO as follows:

Focus
- a forum for identifying community issues and problem solving of these issues;
- to provided representation on landcare and environmental issues; and
- to organise and support social functions.

Structure and functioning
- meetings should be credible (i.e. democratic and participatory) and held quarterly;
- there should be a chairperson and secretary-treasurer;
- the community would act as the 'committee', with no bureaucracy or in-group;
- issue-based subgroups would be formed as needed;
- the structure of ECCO should be allowed to evolve;
- it should be inclusive (i.e. involve as many members of the whole community as possible);
- no-one should become or be allowed to become overburdened with work;
- a mailing list and directory of residents and the skills they had to offer would be drawn up and provided to every household — to be complemented by a telephone 'tree';
- an annual general meeting would be held in August, at which the two main officers would be elected; and
- the geographical boundaries for ECCO would be extended to the north of Kekerengu to include the Ure/Waima River Catchment (which was outside the original 'community' boundary).

The meeting re-elected the interim chairperson and secretary as the first officers of ECCO, and various individuals volunteered to prepare newsletters and do various administrative tasks (including designing a logo). A date for the next meeting was set.

At the end of this workshop and general meeting, a subgroup formed to discuss and decide on responses to an approach from Tranz Rail, which was proposing to extract rock from the Clarence Valley for construction of a new Cook Strait ferry terminal at Clifford Bay (north of Ward). This subgroup was facilitated by

one of the village newcomers with experience of working in community development, with the author's assistance. The meeting/workshop ended with a barbecue.

As can be seen, a feature of each meeting of the community group was the revisiting of previous decisions, consensus endorsement of these, and a reconfirmation of the direction of the group. This cyclical (or iterative) process of clarification reflected the desire by the committee and new officers to be seen to be democratic and fair, to avoid generating conflict at a stage when the group was still finding its feet, and to affirm previous commitments.

In the weeks that followed, a second community newsletter (under the banner of ECCO) was prepared and distributed. Construction also began on a new Glen Alton Bridge, paid for by roading grants and the KDC. This had been an issue at the time of the interviews 15 months earlier.

In early 1998, the author met with a fieldworker from the New Zealand Landcare Trust to discuss the development and training needs of the group (in particular facilitation skills), opportunities for contact with other groups, and ongoing support. (The NZ Landcare Trust is a national body formed in 1996 as a joint initiative by Federated Farmers, the Federation of Maori Authorities, Federated Mountain Clubs, Fish & Game NZ, the Maruia Society, the Royal Forest and Bird Protection Society, and the Women's Division of Federated Farmers – with funding support from central government – to assist and promote landcare groups working towards the sustainable management of natural and physical resources (NZ Landcare Trust 1997).) The Trust agreed to maintain contact with ECCO and include its members in training programmes, and this led to one person being invited to participate in a seminar of women associated with South Island landcare groups.

5.5   DEVELOPMENT OF THE NEW ORGANISATION

ECCO met again in March 1998. This meeting was conducted in two parts: a review of progress on its various activities, and a participatory evaluation of the research project up to that point. The meeting was facilitated by the chairperson and the author, and over 30 people attended. Issues and topics covered in the first part of the meeting included:

- the community directory, which had been prepared and was being distributed;
- the rubbish collection and recycling system, which was running reasonably well for both the community and KDC;
- organisation of an opening ceremony for the new Glen Alton Bridge;
- fundraising, especially for the newsletter. Sponsorship of the next issue was provided by the project. A meeting had also been arranged with an officer of the Department of Internal Affairs to discuss funding for community development activities from the Community Organisations Grants Scheme. The KDC had also agreed to cover the costs of the community directory;
- activities of the subgroup which was continuing to consult with Tranz Rail;

- procedures for activating responses to fires and a proposal to unite the Clarence and Kekerengu fire-fighting parties and to levy the wider community for running costs. Discussion also covered women's participation in the fire party, and a programme for education on fire prevention in the home;

- a report on Federated Farmers' participation in KDC's process for planning for areas of natural significance, and consultations with property owners;

- a report by Federated Farmers' representatives on CRC's Kaikoura Pest Liaison Committee, including proposals for mapping of weeds by local property owners, and preparation of individual action plans. African feather grass was noted as being present locally. They also reported on possum monitoring work in the Clarence Valley, proposed poisonings for the winter, and DOC's weed control work in the Clarence riverbed. It was also agreed that the ECCO chairman would discuss future liaison with the DOC field office over land and pest management issues. A check was to be made on whether the field office was receiving notices of ECCO meetings;

- organisation of a training programme for locals to become registered in animal poisons use, and initiation of a Locally Initiated Programme (LIP) for BTb vector control which would attract financial and technical support from the Animal Health Board;

- a report from Woodbank School trustees on the ongoing viability of the school, and forthcoming recruitment of a new teacher;

- a report on coordinated repairs made to the rural and village water supply scheme; and

- a report on recent negotiations with Telecom over upgrading the Clarence telephone system, and integrating the Clarence and Kekerengu systems.

As can be seen from the range of issues and activities discussed, the new community organisation had begun evolving into the umbrella organisation for a range of individual and community initiatives. Issues of relevance to both the non-farming and farming sections of the community were also being addressed, and non-farming residents were beginning to take an active role. The rabbit problem had become less pressing, especially since the major poisoning programme a year earlier and the 'unofficial' release of RCD in July/August 1997, both of which had significantly reduced rabbit numbers. However, weed and pest issues were being brought to the group for discussion, and ECCO was being seen as a means of integrating action on these. The proposal to initiate an AHB LIP group indicated progress towards a more strategic, community-based approach towards possum control.

6. Project evaluation

The project design called for an evaluation. This took the form of evaluation interviews with four members of the original host group, comment on developments from representatives of local agencies, and a participatory exercise at the March 1998 meeting of ECCO.

6.1 EVALUATION INTERVIEWS

Comments from the interviews covered overall community functioning and processes, along with various other observations and suggested improvements. While there were particular suggestions for improvement, there was a large degree of consistency among the interviewees on the outcomes of the project. The evaluation comments are summarised below.

6.1.1 Comments on community functioning and processes

A strong sense of community had developed as a result of the project, and this was uplifting people in the district.

The modelling of participatory processes and facilitation by the researchers, and their use by ECCO members, had led to an overall improvement in communication and participation in meetings and local discussions. People felt increasingly free to speak up without fear of criticism, and felt they would be listened to. There was also a more genuine reflection of community opinion on issues. Open verbal conflict (a reported feature of ECFF meetings), was absent in ECCO meetings, and people were reported to be less anxious and more considerate in the discussions which occurred. Consensus decision making was becoming accepted and used. People were experiencing new ways of working together.

The establishment of ECCO had created a forum for wider involvement by residents of the district—for example, women were centrally involved, and farmers who had not been participating in the ECFF were joining in, along with non-farming local residents. Also it had provided a point of contact for new arrivals. People were getting to know each other through participation in ECCO meetings and activities, and there were more community 'social' occasions.

To a large extent ECCO was replacing the local Federated Farmers as the voice of the community, and this was welcomed by members and non-members alike. Because a wider range of people were involved, ECCO was seen as being more representative. KDC had already recognised the role of ECCO, and a wider range of issues and activities were being brought to ECCO. It was also being used to disseminate information on a variety of community activities. The establishment of a newsletter was an important aspect of this.

The process of activating the group, especially after the first community workshop, could have moved faster. However, interviewees also noted that by moving too fast the facilitator/researcher might then have been seen as 'too pushy'. Some felt that the steering group needed to reach the point where it recognised it needed assistance, and consequently the outside facilitator's intervention was timely. The gentle 'hands on' approach was considered appropriate, given the independent nature of the local residents.

Work was still needed to bring the farming and non-farming sections together, but this would be an ongoing issue because of differing values and motivations for living locally.

Sustaining the organisation depended on identifying and implementing realistic projects of relevance to the wider community.

The subgroup concept for dealing with particular issues was working well.

6.1.2 Other outcomes noted by interviewees

The relationship with DOC was generally good and there was a greater willingness to find ways of working together as neighbours, and with the CRC.

The two rubbish dumps had closed, and the community organisation had instituted a rubbish collection and recycling system which was working well. This had proved the central or catalysing issue for the development of the group.

The rabbit problem had largely been resolved over the intervening period, but increased formal local management of possums and BTb was being investigated and was needed.

In the intervening time, CRC had developed and was beginning to implement new policies for weed control, especially nassella, gorse, and broom. This meant that, in the future, individual properties would be assessed and monitored by the CRC (paid for by rates) and the owners would become responsible for doing control work. As with rabbits, if the weeds were not controlled (through grubbing or spraying), the Council would step in and do the work, passing the cost on to the owner. However, there were still opportunities for the local landowners to do their own collective assessment and mapping of weed incidence, and to coordinate control work with the CRC and DOC in the riverbed and on public land, especially in the engagement of spraying contractors, or the purchase of chemicals, etc. This could be tackled as a project by ECCO as a whole or in a subgroup. However, people had to recognise the need first, rather than be pushed into anything.

The establishment of ECCO had provided a wider platform for lobbying, especially on future issues of importance to the community, e.g. keeping Woodbank School viable and open in the face of possible pressure by government for its closure.

6.1.3 Agency observations

At the agency level, it was reported that representatives from the study area were participating in the CRC Kaikoura Pest Liaison Committee, which provided for exchanges of information between various districts, but the CRC itself was not yet involved locally in developing community-based pest initiatives. ECFF representatives were participating in KDC's consultative group on planning for protection of natural areas. Official liaison between the CRC and DOC was reported to have slowed following DOC restructuring, and local liaison between the Conservancy and landholders was also reported to have wound down. Following the first community workshop in December 1996, there had been no participation by representatives from the DOC field office in the full community meetings up to that time, possibly because they had not been notified by the group itself, but one officer had participated in the subgroup meetings over the Tranz Rail proposal. In addition, the CRC appeared to not be aware of the activities of ECCO and was continuing to deal with the Federated Farmers representatives over resource and pest issues. Greater liaison between ECCO and agencies such as the CRC and DOC was required. However,

a relationship had been established between ECCO and the NZ Landcare Trust, and further involvement was planned.

6.2 PARTICIPATORY GROUP EVALUATION

The group evaluation exercise was carried out in association with a meeting of ECCO, the group established by the community in response to the project. Three questions were put to the participants, and all responses were recorded, unedited, on flip charts. These are listed, according to theme, as follows:

1. What benefits came from the DOC project with the community?
   - It was a catalyst for the community coming together
   - The community received ongoing facilitation assistance
   - It generated a greater level of community involvement
   - It has provided the opportunity for wider involvement in community affairs
   - It provided an environment where people are able to speak honestly
   - It provided a forum for women to be involved in issues and decision making
   - It created a group which enables participation—quite different from Federated Farmers
   - It helped break down some of the differences between different types of residents
   - It helped people understand that different people have different concerns and issues
   - New contacts were made
   - The newsletter
   - It provided a background and overview of the community
   - It expanded understanding of who made up the community
   - It built knowledge of the community
   - It identified the issues the community needs to focus on
   - It brought attention to and focused on environmental issues
   - The rubbish problem was solved
   - A landcare group was formed
   - It showed that a community group can get things done.

2. What lessons were learned?
   - The community itself is the expert on its own circumstances and needs
   - The value of a participatory/inclusive approach to meetings
   - Full communication is essential, and it must be ongoing
   - The community makes the best committee, rather than a small or select group
   - Child minding should be regularly provided

- Keep the focus of a group broad to begin with—don't predetermine the issues
- The need to get to the starting point early
- Individuals and groups can't dictate what's appropriate or best for everyone
- The rubbish management issue was common to all, and a good starting point
- It confirmed that DOC is not necessarily a 'baddie' in farming areas.

3. What things could have been done better?
- Could have got to the 'meat'/focus/key issue more quickly
- Shorter meetings
- There could have been better inclusion of some sections of the community.

6.3 OVERALL ASSESSMENT

The greatest benefit of the project appears to have been its community development aspect, especially in the creation of a forum for better and broader participation in community affairs. From this arose improved understanding and acceptance of the diversity present, and, through the facilitation work of the researchers, people saw that it was possible to be more inclusive and participatory in community deliberations and decision making. This further encouraged people to share their ideas. It also created a platform for dealing with issues facing the community, and a newsletter which had improved communications. However, some felt that more effort could have been made to involve the non-farming section of the community. As noted earlier, this depended on being able to identify how to access these residents.

A crucial element of the community development process was not rushing into a particular issue (such as pests and weeds), but rather allowing the community to determine its own needs. This proved frustrating for some who wanted to move quickly on pest and weed problems after the initial agreement to form a group. However, a community organisation was formed which successfully tackled an environmental issue facing all the community. Overall, the public perception of the Department of Conservation, and its relationship with property owners, had been enhanced by the project.

While the basis for organising community action had been achieved though the establishment of a broadly inclusive community/landcare organisation which had managed to tackle a local environmental issue, at the time the project officially ended, it had not succeeded in bringing the community to the point where it was dealing collectively with local pest and weed issues. To some extent, by the time the community had arrived at the point in its development where it could begin to deal with pest and weed problems (taking approximately 18 months), the intervening actions of the Canterbury Regional Council on rabbit and weed control had pre-empted or eliminated the need for urgent community-based action. However, by the end of the research period, this community had developed sufficiently to begin a new community-based initiative to deal with possums and other BTb vectors in the longer term. Overall, the Department of Conservation field office or conservancy had not been a visible participant in these developments, though it had consistently

proved to be responsive, and a good neighbour in dealing with pests and weeds on its own lands.

6.4 SUBSEQUENT DEVELOPMENTS

The research project with this community ended in June 1998, but this did not mean the end of contact with the group. The author has continued to receive newsletters, and attend ECCO meetings and community social gatherings, and ECCO has continued to evolve. For example, the report of its July 1998 meeting noted, among other things, that:

- the Department of Conservation in Marlborough had begun to liaise and consult with ECCO on its activities in the Marlborough and Kaikoura areas;
- ECCO was now receiving newsletters, information kits and publications from the NZ Landcare Trust;
- Internal Affairs grants and requirements had been investigated – in particular, support for the fire-fighting party;
- the LIP group for BTb vector control was being developed and coordinated as part of ECCO, and poison licences were being applied for by local participants; and
- the ECCO subgroup had made a formal written submission to the District Council on the Tranz Rail Clarence Riverbank Extraction Proposal.

7. Strategies for working with communities on conservation issues

This section provides observations and suggestions, drawn mainly from this project, which may be useful for those considering implementing community-based conservation or resource management projects. It is not intended to be a comprehensive guide, though references have been provided for those wanting more detailed assistance. It should be noted that these suggestions are drawn from experience gained from a government agency-sponsored *action research project,* in which the researcher – a community 'outsider' – assisted as a facil-itator in the planning and implementation of community action, while, at the same time, documenting the process whereby this action came about. In doing this work, the facilitator-researcher drew on personal experience and knowledge gained from previous project involvements both within and outside

New Zealand, and from the available literature. However, those wanting to work on community-based projects may not have such previous experience to draw on. While the literature provides an essential source of knowledge and learning, there is ultimately no substitute for *learning by doing* – and every project offers new opportunities to learn. The relevance of each of the sugges-tions below will therefore depend on the particular conservation or resource management situation, the project objectives, the community concerned, the role and affiliations of the person/s involved, and of course, their own experience. For the purposes of presenting these observations and suggestions it is generally assumed that the project initiator will be sponsored or employed by an outside agency or organisation, and will be taking on the task of facilitating community involvement.

Have the key ingredients for community action

Chamala & Mortiss (1990), among others, note that four conditions are necessary for community-based conservation or resource management initiatives (or indeed any change action) to succeed:

- a pressure for change

- a shared vision

- capacity for change

- actionable first steps

Before any project or community-based programme can get started and meaningful action initiated, local people must feel a *genuine need to improve or change the existing situation*. Without this recognition, an initiative will be perceived as having little relevance to local people and will be given low priority, or at worst, will be resisted as interference by outsiders. In the project reported here, the author was approached by a group of individuals who felt they needed assistance to bring the community together to address what they felt was a common concern among local farmers – that is, the control of pests and weeds. The sponsoring agency also considered this issue relevant, and had a stake in resolving it. Involvement with the community was formalised with an existing credible local community group, which confirmed and expanded on these issues. However, through a process involving household discussions, participatory workshops, informal discussion, and examination of community trends and history, an underlying problem of reduced social cohesion, caused by various social and economic changes, emerged. The community saw this reduced cohesion as a priority problem since it affected all sections of the local population, and action on this seemed to be a prerequisite for jointly tackling pest and weed problems. Strengthening the community so that it was capable of collectively dealing with these and other problems became *the shared vision.*

Without a clear, shared vision, involving general agreement on the key issue and priorities, community action will lack focus, and the initial motivation of the participants will be lost. As Chamala & Mortiss (1990) note, there will be a fast start 'that fizzles out', and this can lead to disappointment and cynicism over future involvements. Time must therefore be allowed for a *consensus* to emerge over the priority issues and for a *vision* to develop of what to do about them. The facilitator has the important role of initiating and managing processes that enable people to express their views and to participate in analysis and

discussion in order to arrive at this vision. Use of suitable techniques (as discussed below) further enables such participation in public settings.

In this project a key factor in bringing people together was the identification by the community of a relevant non-threatening issue which affected everybody, which could be tackled locally, in which most people could participate, and which had a high chance of being resolved successfully. The household waste management and recycling project was therefore taken up as an *actionable first step*. Such first steps in implementing the shared vision are important for channelling the willingness to participate, and avoiding haphazard efforts, false starts and the frustration and confusion of uncoordinated expenditure of community members' energies.

The waste management initiative was also consciously designed to demonstrate that the new emerging community organisation had the *capacity for change* and the will to take action and succeed, and that it was created for the benefit of all sections of the community. This initiative also provided a platform for the development of an organisational structure which suited the community and through which it could negotiate with external agencies.

Learn about, and profile the community
Working closely with a community as a project promoter or facilitator involves continual learning about the area, its people, the prevailing values and culture, local issues, capacities, and resources, and where one fits within these.

One of the first steps that can be taken to get to know an area is to develop a social profile, using existing information. This can be achieved by, for example, analysing Census data (such as in Section 3.2), reading any written histories of the area, scanning local newspapers, and talking with people who have worked in the area before. (Guidelines on profiling and useful sources of information can be found in the social impact assessment literature, such as Taylor et al. (1995).) Early interviews with key people who supply services to the area and personnel of relevant agencies are also useful for supplying background data. Collectively, such sources can provide information on the history of the area and its people, current social trends and issues, and help identify key groups and individuals.

One should also conduct early discussions (and possibly informal workshops as in this study), both with leaders and ordinary members of the community, to get background on what is causing the pressure for change and who the stakeholders might be. This contact also provides the opportunity to begin to build working relationships with key locals.

More extensive subsequent discussions and interviews enable the outsider to get individual viewpoints on the key issues to be addressed, to get to know people and explain any initial project proposals, and to learn about any potential tensions or conflicting interests and previous experiences in community projects that may have a bearing on the proposed work, including previous agency involvement. It is important for the facilitator to retain an open mind on the situation, reserve any judgements, and be guided by what locals have to say about the local circumstances and issues.

In the early stage of this project, visits to the properties to conduct informal interviews enabled the facilitator to become familiar with the members of the

farming community on their own "patch", to establish initial rapport, to hear about the issues for them and for their property, to learn about the community (including prevailing common values and attitudes), and to gauge the range of resource management and social issues facing the broader population. This process also enabled community members to hear and ask questions about the proposed community project, to meet the 'outsiders' likely to be involved, and to express any concerns—all out of the public gaze. It also allowed the facilitators to assess the potential participation and viability of the project.

As noted, gaining a detailed understanding of any previous community-based projects—in particular, previous involvement in conservation or resource management issues—is essential. Previous successes and failures are part of the history of a community and condition involvement in future projects. It is important to learn about who was involved, who were the leaders or initiators, what were the circumstances that gave rise to the projects, how things were organised, what worked and what failed, and if there are any residual conflicts or tensions that need to be resolved or taken into account in the planning and implementation of the new project.

It is important to identify opportunities and potential threats inherent in the current circumstances of the community or area. In this study, the existence of a social/community vacuum (arising from a reduction in social interaction and meaningful participation over the past 10 years) and a desire for some form of community renewal presented an opportunity. However, the social and economic changes and attendant time and social pressures in people's lives (that had caused this situation) also presented a major threat to involvement of the community in the project.

Identify and involve key people

Depending on the circumstances of the facilitator, initiating community-based projects involves (minimally) two sets of negotiations. The first of these needs to be with the management of the potential sponsoring agency. In cases where the agency is not familiar with community-based work, managers may be sceptical (or, at worst, extremely fearful) of close involvement with the community. To those concerned with programme deadlines and accountability, budget constraints, and managing public relations, participatory projects often appear too open-ended, unpredictable and uncontrollable, and because they focus on "process", too uncertain of achieving acceptable outcomes. They may also be seen as raising expectations that the agency may not be able to meet, or could stir up issues that to them are perhaps best left dormant. Such concerns need to be acknowledged and responded to. If support is not subsequently forthcoming in the form of a champion or a more general agency commitment, accompanied by the allocation of sufficient resources, community involvement will not be feasible.

The second set of negotiations (which are likely to go hand-in-hand with agency negotiations, as in this project) is with the community or group that recognises the need to act on some issue. Access to the community and the parameters of the working relationship should therefore be negotiated with a credible group. As noted above, background information on this group should form part of the initial investigations into the proposed project and the area. Important considerations are the nature of the group's mandate, how the group and its

members are regarded within the broader community and the sponsoring agency, the sections of the community that they are drawn from, and previous initiatives and current involvements. Ideally they should be known to you or to others with whom you are going to work—and trusted. If the members of the group are not key influencers in the local community, identify who is, why, and who can provide access to such people.

Such background work is important, as this group is likely to consist of the leaders in the community or a section of it, and will most likely be the local hosts and champions of the project. They are also necessary for facilitating access to the various groups within the community and may perhaps broker any relationships with other stakeholders or interests.

It is important for the facilitator to openly state his/her gaols, any expectations of the relationship, his/her approach to working with the community and how this might change as the project develops, constraints imposed by the sponsoring agency, and the process and timing of eventual withdrawal from the project. In the early stage, however, the group may not have clarified its goals or given much thought to the nature of this relationship, so ongoing dialogue will be necessary. In the case of this particular project, known leaders of an existing local organisation approached an outsider to assist in facilitating a proposed local initiative. However, the facilitator's potential involvement had to be clarified and negotiated with both the group and the agency willing to sponsor this initiative. The group acted as the early hosts, gatekeepers, and champions of the project, though in time the leadership changed and the initial objectives were modified through wider community input.

Remain neutral, learn, and transfer skills

So far it has been assumed that the sponsoring agency's staff would act as the facilitator for a community-based project. However, where the requisite skills are not available in the agency or community, or there is potential for conflict of interest or lack of trust, it may be advisable to engage an independent outside person to act as a facilitator. Indeed, in this project the community and the sponsoring agency both felt the need to seek the services of an independent outsider—in the case of the community, to act primarily as facilitator, and in the case of the agency, to carry out an action research project with the community.

By engaging an outsider, the sponsoring agency acquired the necessary project capability, and was able to remain at arm's length, thus avoiding a potential confusion of multiple roles, demands and accountabilities that might arise were an agency officer to be primarily responsible for implementing the project. For the community, involvement of a neutral outsider was important in getting the project started, as it was generally agreed that it had become extremely difficult for a local person to try to bring people together without invoking further difficulties, even if they had the requisite skills. Because of previous experiences, the community was also reluctant to bring in an employee of a local or regional council, or a government agency.

Throughout the project, having a neutral experienced facilitator enabled impartial inclusive methods for planning and decision making to be modelled—an important aspect of local capacity building in such projects (see Collins 1997). This neutrality also helped in the development of trust. Indeed, most

communities are unlikely to have had much involvement with participatory approaches and projects, and are therefore likely to be suspicious of what is involved. Some members of the community may continue to be sceptical of a facilitator throughout a project, and be intolerant of what they see as excessive focus on process rather than action. Since it is inevitable that the facilitator's motives will be questioned, neutrality, not having an 'axe to grind' or 'barrow to push', and a sensitivity to not taking control or dominating, are important in helping confidence and trust to develop.

Be flexible and responsive

Working with communities in a participatory way involves giving up a large measure of control, being willing to 'follow', learn, and become flexible and responsive to the needs and timeframes of the group. In the course of working on a community project, the facilitator's and host group leaders' assumptions about the ways things are will inevitably be tested. This especially relates to timetable expectations, since working with a community generally takes more time than expected. Progress, like learning, is seldom linear, in that sometimes there seems be no energy and nothing seems to be happening, yet at other times consensus and action occur very quickly (and mysteriously). In this way community-based projects tend to be more 'organic' in their nature than 'mechanical'. This requires the facilitator to be very flexible—the kind of flexibility that action-oriented individuals within the local group (often leaders) and 'technocratic' agency administrators are often not comfortable with.

However, each community has its own prevailing circumstances, history, social dynamics, ability to learn, and ways of doing things which determine how and when actions are taken. While projects may aim to improve aspects of local functioning along with achieving particular conservation or resource management goals, consensus development and meaningful participation cannot be rushed. Time has to be allowed for people to learn and make mistakes. Clarifying issues, planning, and organising action may therefore require several iterations before consensus, commitment and success are achieved. Striking a balance between intervention to keep things moving towards the goal and allowing enough room for developments to unfold naturally is therefore a constant challenge for the facilitator. In such circumstances, it is important for him/her to be aware of, and responsive to, opportunities to act as a catalyst. These opportunities become more recognisable as the outside facilitator learns about the community. As in this study, events and the actions of others (including other agencies) may overtake the facilitator's own efforts. By being flexible, and not overly concerned with 'territory' and linear notions of progress, these can be turned into opportunities.

It is often difficult to predict how well the community will work together, if at all, and it may first require initiating a process of bringing people together to decide whether they can or are willing to enter into a partnership to work on issues of common interest. As often occurs with projects of this kind, it was assumed that the agreed work in the community would actually proceed as planned and that progress could be timetabled accurately. The reality was that the circumstances of ordinary people's lives intervened, and continuity of action was not always possible. People did not foresee that they might need to revisit and clarify previously agreed actions several times.

People may also lack the skills or ability to implement the things they commit themselves to, in the time they set themselves. Encouragement and support may be required to get people involved or to keep them involved, and new leaders and participants may emerge as people learn about and become secure in the participatory process. Even when people feel they do not have the skills to take on key roles, they may possess profound knowledge and understanding of their environment and the issues that need to be addressed. This knowledge and experience (sometimes referred to as 'human capital') should be respected and utilised, and mutual learning encouraged. According to Chambers, the working rule in participatory rural appraisal (PRA) has become "to assume that local people are capable of doing something until it is proved otherwise" (Chambers 1994, p. 9).

Use a flexible methodology and creative techniques

Previous sections of this study have outlined some of the methods used in project planning and implementation, and the techniques used to foster participation and achieve agreement on priorities. Community meetings and workshops are commonly used in these sorts of projects and tend to take the form of large amounts of verbal interaction, often dominated by a small group of individuals (and the facilitator!). However, people learn and communicate in different ways, and with different levels of comfort and skill. It is therefore advisable to use a diversity of communication techniques in workshop or group situations. Particularly relevant here are the visual and non-verbal techniques and methods (often referred to as 'tools') of PRA which have been developed to foster inclusion and participation in problem identification, idea generation, and decision-making (Chambers 1994). Some of these include: participatory mapping, diagramming and modelling, matrix ranking and scoring (for example, of issues and options), role playing, historical timelines, webbing and chaining (a form of mind mapping or tree diagramming), and Venn diagramming of the relationships between local institutions and groups, along with more familiar techniques such as group brainstorming and SWOT (strengths, weaknesses, opportunities, threats) analysis. The range of tools that can be used is only limited by the facilitator's imagination, and he/she should be willing to experiment (for examples see Taylor et al. 1995; Davis-Case 1990; Hunter et al. 1992, 1994; Sarkissian & Perlgut 1994).

Where analysis of a conservation, environmental, or social issue is called for, the facilitator should attempt to triangulate the sources of data and opinion (e.g. various sections of the community, experts, census data, etc.) as well as methods for obtaining these data (e.g. interviews, observation, discussions, and various workshop techniques). In participatory workshop situations, community participants will practise this triangulation themselves by crosschecking and correcting each other—as, for example, when the host group in this project was mapping their community and the linkages between local families. In addition to improving the accuracy and validity of such analyses, combining local peoples' perspectives and knowledge with existing outside expert opinion or scientific studies can generate a much richer picture of the local situation and the issues than might be obtained from a single source.

Accept the challenge and rewards of the community–based approach

As this project found, one may begin with a focus on a particular problem or need only to learn that this cannot be tackled without getting involved in wider related issues. Becoming involved in a community-based conservation and resource management effort in reality, therefore, means participating in a process of community change and development.

'Community-based' action implies working *with* the people of a particular area or district to address a problem or issue which *they* recognise, consider important, and feel the need to respond to *themselves*. To do this successfully with such a motivated community or group the outsider has to work through a process with the community (Chamala & Mortiss 1990) to:

- identify its real problems and needs;
- develop a shared vision of what to do about these problems;
- build the capacity necessary to achieve the desired changes – including leadership, skills, and processes and organisational arrangements that enable people to be genuinely heard and to participate;
- initiate and maintain action; and
- monitor and evaluate progress.

This process is therefore ultimately about enhancing the community's ability to analyse, understand, take responsibility for, and solve its own problems—in other words, community development. Karen Jones has pointed out that, through effective joint action and the sharing of skills and knowledge, people become enabled to "grow in confidence and competence, collectively giving them, and their communities . . . greater influence and control over their future" (Jones 1995, p. 9). Stocker & Pollard (1994) observed such development as an outcome of West Australian community-based ecologically sustainable development projects:

"Community group members have been able to take both individual and shared responsibility for community issues. Their tools in this process have been the acquisition of skills and information. Thus empowered, the groups have developed a basis for action as well as for influencing external agencies to bring about change in their communities. . . The groups are clearly initiators and principal agents of community development." (Stocker & Pollard 1994, p. 204).

In the project reported here, community development was both a priority aim of the local people, and an outcome.

Effective community-based, or 'bottom-up' (rather than 'top-down'), initiatives involve embracing, fostering and facilitating community action and community service. This in turn involves valuing local knowledge and skills, and working in a spirit of trust, respect and cooperation. To do this, outside experts and agencies must move from being project 'implementers' (who do the planning, implementing and managing *for* local people), to become 'enablers' who *help* people to plan, implement and manage their *own* projects. The attitudes and behaviours of the facilitators are, therefore, crucial. Carolyn Jones (1996) has described 'right attitude' as including openness, humility, curiosity, acceptance, and sensitivity, while the 'right behaviour' consists of sharing, establishing rapport, being friendly and encouraging, showing respect,

listening carefully (and not lecturing), embracing and learning from mistakes, avoiding being dominating, and being neutral. The effective facilitator must also be flexible and innovative in terms of methods, and be able to triangulate forms of analysis and sources of information necessary to understand the issues facing the community and its local natural resources (Jones 1996, Chambers 1997).

Developing and implementing community-based conservation and resource management projects presents considerable challenges to agency officers, researchers and managers, especially those not usually actively involved with communities. However, the gains for the community, the outsider-facilitator, the agency, and the local environment can be profound and long-lasting. Fortunately, there is a rich and growing literature and body of experience to draw on—in public participation, social assessment, participatory rural appraisal, and integrated conservation and development —for those taking on the challenge of working in partnership with communities on conservation issues.

8. Acknowledgements

9. References

Brown, M.; Wyckoff-Baird, B. 1992. *Designing Integrated Conservation and Development Projects*. Biodiversity Support Program, WWF Publications. Washington.

Chambers, R. 1994. Participatory Rural Appraisal: challenges, potentials and paradigms. *World Development, 22(10)*: 1-17.

Chambers, R., 1997. *Whose Reality Counts: Putting the First Last*. Intermediate Technology Publications, London.

Chamala, S.; Mortiss, P.D. 1990. *Working Together for Land Care*. Australian Academic Press, Brisbane.

Collins, H. 1997. *Learning for Landcare*. Prepared for NZ Landcare Trust, Agriculture New Zealand Ltd.

Davis-Case, D. 1989. *Community Forestry: Participatory Assessment, Monitoring and Evaluation*. United Nations Food and Agriculture Organisation, Rome.

Davis-Case, D. 1990. *The Community's Toolbox: The Idea, Methods, and Tools for Participatory Assessment, Monitoring and Evaluation in Community Forestry*. United Nations Food and Agriculture Organisation, Rome.

Fitzgerald, G.; Saunders, L; Wilkinson, R. 1996. Public perceptions and issues in the present and future management of possums. *MAF Policy Technical Paper 96/4*.

Hunter, D., Bailey, A., Taylor, B. 1992. *The Zen of Groups: a Handbook for People Meeting with a Purpose*. Tandem Press, Auckland.

Hunter, D., Bailey, A., Taylor, B. 1994. *The Art of Facilitation*. Tandem Press, Auckland.

Jones, C. 1996. The principles of PRA/PLA. *In*: Institute of Development Studies, 1996. *Introductory PRA Methodology Pack*. (section 7.1). University of Sussex, Brighton.

Jones, K. 1995. *People and Participation in Rural Areas: a Community Development Approach*. Report prepared for Winston Churchill Memorial Trust and New Zealand Counties Trust, Western Bay of Plenty District Council.

Lewin, K. 1946. Problems of research in social psychology. *In*: D.C. Cartwright (ed.) 1951. *Field Theory in Social Science: Selected Theoretical Papers by Kurt Lewin.*(p. 155-169). Harper & Bros, New York.

New Zealand Landcare Trust, 1997. *Strategic Plan 1997*. NZ Landcare Trust, Christchurch.

Sarkissian, W.; Perlgut, D. (eds), 1994. *The Community Participation Handbook: Resources for Public Involvement in the Planning Process* (2nd edn). Institute for Science and Technology Policy, Murdoch University, Perth.

Sherrard, J.M. 1966. *Kaikoura: A History of the District*. Kaikoura County Council, Kaikoura.

Stocker, L.; Pollard, L. 1994. *In My Backyard: Community-based Sustainable Development in Regional Areas*. Institute for Science and Technology Policy, Murdoch University. Perth.

Storey, J.,1997. Martha Mine, Waihi: a case study of community conflict. *In*: Claudia Orange (ed.), 1997. *Community Issues In New Zealand* (p. 101-116). The Dunmore Press Ltd, Palmerston North.

Taylor, N., Goodrich, C., Bryan, H. 1995. *Social Assessment: Theory Process and Techniques*. Taylor Baines & Associates, Christchurch.

10. Appendix 1

LAND MANAGEMENT ISSUES RAISED BY THE
INTERVIEWEES

		ISSUES FOR SELF (N =34)		ISSUES FOR COMMUNITY (N =30)	
		n	% of all issues	n	% of all issues
Pests	Unspecified	2	0.9	1	0.8
	Control on DOC land	1	0.5		
	Costs of control	1	0.5		
Rabbits	In general	27	12.6	19	15.7
	Neighbours' control	4	1.9		
	Costs of control	3	1.4		
	Lack of riverbed control	3	1.4	3	2.5
	Control on DOC land	3	1.4	1	0.8
	Control on coastal strip	3	1.4	3	2.5
	Use of 1080	2	0.9	2	1.6
	Lack of control on KDC land	1	0.5	1	0.8
Possums	In general	25	11.7	11	9.1
	Neighbours' control	2	0.8		
	Costs of control	1	0.5		
	Forest deterioration problem	1	0.5		
Ferrets	(including as BTb issue)	9	4.2	3	2.5
Other pests					
	Goats	2	0.9		
	Pigs	1	0.5		
	Deer	2	0.9		
	Feral cats	2	0.9		
	Hares	1	0.5		
	Stoats			1	0.8
Subtotal - pest issues		96	44.9	45	37
Weeds	Unspecified	1	0.5	7	5.8
	Control on DOC land	1	0.5		
	Neighbours' control	1	0.5		
Broom	On property/in general	2	0.9	1	0.8
	Control in riverbeds	3	1.4	1	0.8
Gorse	On property/in general	3	1.4	3	2.5
	Control in riverbeds	6	2.8	3	2.5
	Control on DOC land			1	0.8

Other weeds	Nodding thistle	9	4.2	1	0.8
	Nassella	8	3.7	3	2.5
	Variegated thistle	3	1.4		
	Manuka/scrub	3	1.4		
	Hieracium	2	0.9	1	0.8
	Boxthorn	1	0.5		
	Wilding pines	1	0.5		
	Ragwort	1	0.5		
Subtotal - weed issues		**45**	**21.0**	**22**	**18.2**

Other issues

Erosion	Slipping	12	5.6	13	10.7
	River aggradation/deposition	8	3.7	6	5.0
	By river	3	1.4		
	Wind erosion	1	0.5		
Access	Roads/bridges, etc	7	3.3	3	2.5
Flooding	Damage to property	4	1.9		
Viability	Farm income & operation	5	2.3	2	1.6
	Land reversion	4	1.9	1	0.8
Farm management	Property issues/characteristics	3	1.4		
	Animal health	3	1.4		
	Tb management in general	3	1.4	1	0.8
	Climate	1	0.5		
	Water supply	3	1.1		
Legal	RMA requirements/restrictions	6	2.8		
	OSH restrictions	1	0.5		
	Pastoral lease/tenure review	1	0.5		
Environment	Bush/forest protection/ retirement	1	0.5	4	3.3
	State of rubbish dumps	2	0.9	6	5.0
	Need for sustainable agriculture	1	0.5	4	3.3
	Use of agrochemicals	1	0.5		
Land use	Impacts of subdivisions, etc.	1	0.5	1	0.8
Water scheme	Maintenance issues	2	0.9	2	3.7
Social	Collective approach needed to issues			8	6.6
	Community well-being/revival			3	2.5
Total - other issues		**73**	**34.1**	**54**	**44.6**
Total issues raised in all categories		**214**	**100**	**121**	**100**