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Landcare Groups in Victoria: after twenty years

A report to the Australian Government
Department of Agriculture, Fisheries and
Forestry, National Landcare Program, Monitoring
and Evaluation Project

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1. Executive summary

Introduction

In October 2004 surveys were distributed by Victoria's regional Landcare facilitators working in the Catchment Management Authorities (CMA) to all community-based natural resource management (NRM) groups with a primary focus on private land. Group leaders or an informed member was asked to complete and return each survey to the researchers at Charles Sturt University (CSU).

Surveys were distributed to 709 Victorian Landcare groups. With 362 surveys returned, a response rate of 51% was achieved. Fifteen surveys were returned from groups that had gone into recess or disbanded, and four surveys were incomplete, giving a final useable sample (N) of 343. With previous surveys in 1993, 1995 and 1998, there was the opportunity to identify trends over time as well as regional patterns in survey data.

The 2004 survey was funded by the Australian government Department of Agriculture, Fisheries and Forestry (DAFF) to complement other data collection as part of the National Landcare Program (NLP) Monitoring and Evaluation (M&E) project. The survey was intended to gather data to inform judgements about the health of the volunteer Landcare movement and its capacity to contribute to NLP program outcomes. Victoria is the only state where there is longitudinal survey data from representative samples of Landcare groups.

Staff from the Victorian Department of Sustainability and Environment (DSE) and Victoria's CMA made important contributions to survey development and undertook much of the survey mail out. As this report illustrates, there are regional differences in the support provided to groups, the way groups operate, their levels of activity and participants perceptions of group outcomes. It seems that much could be learned from in-depth exploration of these differences, including the reasons for more positive relationships between groups and the CMA or for much higher success in attracting corporate sponsorship. DSE and the CMA will be particularly interested in these regional differences and the report includes a large number of appendices with regional data. The DAFF NLP M&E project is the principal client for this report and is much more interested in the state-wide trends revealed by our analysis of the survey data.

The 2004 survey included questions seeking information about:

group membership, leadership roles and level of member participation; on-ground work performed; involvement in community capacity building; group engagement with CMA; perceptions of group outcomes; perceptions of constraints affecting the achievement of group priorities; and priorities for the allocation of government resources to Landcare.

As in the past, levels of group activity (on-ground work and capacity building) in the year of the survey, have been used as a tool to assess the extent that most groups are operating at levels of activity that suggest they would be making a meaningful contribution to NLP outcomes; and explore relationships between activity and independent variables expected to impact on group outcomes. Of course, activity levels can only be a surrogate measure of outcomes. For the first time, the 2004 survey included questions that asked respondents to rate their group's performance across the range of possible Landcare group outcomes.

The nine intermediate objectives articulated by the NLP M&E project have been used to structure the presentation of survey data in this report. The survey captured information relevant to six of the nine objectives. A summary of the key research findings is presented under these headings.

Key findings

Engage industry and the wider community in NRM

The first point to make is that there are fewer Landcare groups (reduced from 890 in 1998 to 721 in 2004) with a focus on private land than in the past and that for the first time there is evidence of groups disbanding, going into recess or merging with others at a faster rate than groups are forming. It is possible that this trend is occurring because groups have been established in most areas and some groups have accomplished what they set out to do. It is also possible that the declining number of groups reflects a decline in the underlying health of the volunteer movement. One implication of this trend is that there are substantially fewer Landcare members than in the past. This trend needs further investigation **[Recommendation #1]**.

Landcare groups mobilise a large cross-section of the rural and regional community to address NRM issues. The 721 groups operating in 2004 according to DSE records had a total membership of 23,320 (down from 27,590 in 1998). In 2004, 41% of all landholders were Landcare members in the areas where a group existed. The trend is for Landcare to engage a smaller proportion of landholders, down from 50% in 1995 and 46% in 1998. This trend needs to be monitored, but is not in itself cause for alarm. The level of landholder engagement through Landcare continues to extend well beyond that typically achieved by rural extension programs.

Existing Landcare groups continue to attract new members (12% of all members and a total of 3,511 in 2004) but are doing so at a level below the attrition rate (30% of all members in 2003). The attrition rate is based on the number of 2003 members who had not attended any group activities during 2004 and is likely to overstate the real level of attrition in that some members may return to participate in group activities after a year's absence. On the other hand, it will be difficult for the NLP to effect behavioural change if landholders are not participating in group activities. Clearly, the Landcare movement will not remain a viable force if this level of attrition continues over three to five years. This trend is therefore a cause for concern and needs to be monitored regularly over the short term **[Recommendation #2]**.

The 2004 survey data indicate that participation in group activities by current members is much as it was in the past in that participation was 'about the same' in most groups (58%) and considered 'higher' and 'lower' in about 20% of groups.

Landcare groups continue to engage a substantial (30,282) but declining number of the wider community. In 2004, 43% of groups reported visitors assisting their on-ground work, down from 80% in 1995. In 2004, 35% of groups reported visitors studying their work, continuing a downward trend from 81% in 1995 and 43% in 1998. Perhaps the most telling statistic is that in 1995 when the number of groups (N=700) was similar to 2004 (N=721), the total number of visitors was 40,000.

For the first time, the 2004 survey sought information about Landcare group engagement with Indigenous groups and non-farmers. These data provide important base line information. Three per cent of groups indicated they had been assisted by Indigenous groups in the past year. Twelve per cent of groups said they had involved Indigenous groups in planning or other work at some stage.

One in five of the respondent groups were urban-fringe or urban based and 40% of 2004 members for all groups were not farmers by occupation. Comparisons with information from

recent regional landholder surveys suggest that Landcare groups are engaging a representative group of rural landholders.

Most (70%) Victorian groups are part of a Landcare network. The 2004 survey data reaffirms the findings from previous surveys of very positive perceptions about the value of these networks **[Recommendation #3]**.

The 2004 survey provided strong affirmation of participant's perceptions of the outcomes of the volunteer Landcare movement for all topics related to engaging landholders and the wider community and building social capital. For example, 74% of respondents said their group was successful in attracting widespread participation; 76% for improving communication between landholders; 74% for building trust amongst landholders; 72% for contributing to greater cooperation amongst landholders; and 78% for building a sense of community.

Promoting community, industry and government partnerships

Comparison of 1998 and 2004 data revealed a higher proportion of Landcare groups reporting assistance from CMA (up from 35% to 73% of groups reporting support from CMA). Over the same period, support from all levels of government has declined from 88% of groups to 69%. These trends are consistent with the move to regional delivery of NRM and reflect the fact that Victorian CMA are much larger and far more important NRM organisations than they were in 1998. Indeed, Landcare groups are now more likely to have a designated contact officer with CMA (73%) than with the Department of Primary Industry (DPI) (51%).

The emergence of CMA as powerful NRM players has raised concerns about Landcare/ CMA relationships. The 2004 survey sought to explore this topic. Survey data provided generally positive views of the emerging relationship between the CMA and groups. Groups were more likely (73%) to report that their designated contact officer was from the CMA than with DPI (51%). Over half (54% agreed, 27% neutral, 20% disagreed) agreed that establishing the CMA had increased the support their group received from government. At the same time, 45% of respondents said the definition of the relationship between Landcare and the CMA would be an important constraint affecting the ability of their group to achieve its priorities in 2005; and 32% said that the CMA is placing less emphasis on working with groups to implement on-ground work and this has reduced member enthusiasm. To some extent this level of anxiety or concern is to be expected as the relationships between the regional NRM players are bedded down. Again, it would be easy to monitor this issue **[Recommendation #4]**.

Since 1998 there has been a substantial increase in the proportion of groups reporting support from the Victorian Farmers Federation (VFF) (up from 19% in 1998 to 28% in 2004).

The previous trend of declining engagement with industry/ business has continued, with 11% of groups reporting assistance from this source, down from 19% in 1998, 28% in 1995 and 39% in 1993. While the median value of non-government assistance has increased to \$2,000, this assistance remains a small proportion of the total resources received by groups (8% in 2004). It seems there is still a lot to be done if Landcare groups are to effectively engage industry **[Recommendation #5]**.

The Landcare/ government partnership continues to underpin Landcare group activity. Most groups (78%) reported receiving cash and material support from government and there was a significant positive relationship between funds received and levels of group activity in

2004. Although the proportion of groups reporting assistance from government was down slightly from 84% in 1998, the median value of cash and materials received had increased from \$4,000 in 1995 and \$6,000 in 1998, to \$8,000 in 2004. Eighty-one per cent of all cash and material support received by the respondent groups (\$5.5 million) was provided by the Australian and State governments. This information suggests that Landcare funds are reaching a large proportion of groups. At the same time, 24% of groups reported the value of cash and materials received from government in 2004 was in excess of \$25,000, and this small set (24%) was able to secure most (89%) of the funding received by groups. This information provides some evidence that efforts to direct NLP funds to larger, more strategic projects is working.

Eighty-eight per cent of all respondents said that in 2004 their group had a designated contact officer with DPI, the CMA or local government. However, the proportion of groups reporting rare/ no contact with DPI or CMA staff was up from 8% in 1995 and 15% in 1998 to 32% in 2004. The extent of contact was not significantly linked to the level of group activity, suggesting this trend was not affecting group outcomes. The 2004 survey data suggest that previously very high levels of confidence in the knowledge and skills of government contact staff has been eroded somewhat.

The 2004 survey data suggest there is a much higher level of Landcare group engagement with local government. In 2004, respondents were more likely to report having a designated contact officer with local government (53%) than DPI (51%) and support in cash and materials from local government of \$614,851 exceeded that provided by the private sector of \$497,747. Twenty-four per cent of the respondents said their group had an in-depth discussion during 2004 about involving local government in group work. At the same time, 32% of respondents said it had been difficult getting local government involved in their work. Survey data highlighted the success of the Port Phillip and North Central regions in engaging local government **[Recommendation # 6]**.

Integrating NRM into business and property plans at the enterprise level

Thirty-one per cent of respondents said that in 2004 their members were involved in group activities related to property planning. However, only a small proportion (13%) of the membership in those groups was engaged in property planning.

Previous surveys had established significant relationships between levels of group activity and group involvement in developing a documented catchment or group area plan that links individual property management plans to protect important catchment assets. In 2004, there was a slight increase (up from 40% in 1998 to 45% in 2004) in the proportion of groups undertaking this activity. There are large regional variations in the proportion of groups engaged in catchment planning in Victoria, suggesting that improving the level of CMA commitment to this activity will lift the proportion of groups undertaking this activity and the overall performance of Landcare groups **[Recommendation #7]**.

Establishing an annual action plan that sets out the group's priorities and ways to achieve them would seem to be fundamental to group success. During 2004, 53% of groups said they were involved in this activity, down significantly from 68% in 1998 **[Recommendation #7]**. On a positive note, 87% of those groups involved in action planning said their plan was documented, 80% said their plan was made available to members and 60% said their group or executive had met to review progress.

Sixty-four per cent of respondents had a positive view of the contribution of their group to the outcome of increased appreciation of how actions on a farm can lead to catchment impacts.

Facilitating the development of regionally relevant management practices

The 2004 survey data suggest that Landcare groups continue to make an important contribution to the work of developing more sustainable management practices. As we have seen, groups mobilise a large cross section of landholders. They also provide important fora for the discussion of issues and are engaged in the work of refining best practices.

Almost half of all groups (46%) had conducted field days/ farm walks and 25% were responsible for establishing or managing demonstration or trial plots. These activities addressed a mix of sustainable farming and biodiversity issues, including ways of managing native vegetation and weeds, how to undertake no till cropping, and direct seeding of indigenous plants. A cautionary finding is that there has been a significant decline in group involvement in field days/ farm walks and establishing trial plots. For example, 66% of groups conducted field days/ farm walks in 1998 and 72% in 1995; while 30% had established or were managing trial plots in 1998 and 55% in 1995 **[Recommendation #8]**. The importance of ongoing investment in these activities was reinforced by the finding that 36% of respondents said that knowledge about how to proceed with on-ground work was an important constraint affecting the ability of their group to achieve its priorities.

Survey data confirm the important role of Landcare groups as fora for discussions likely to contribute to development of regionally relevant management practices. For example, most groups (67%) had discussed the management of weeds in-depth during 2004. As in the past, most (53%) groups were involved in activities to monitor changes in the physical environment in their area, including river water quality, the survival of planted trees/ shrubs, remnant vegetation health, groundwater depth and quality, improvement in riparian health after fencing to manage stock access, soil condition, and weeds.

Most 2004 survey respondents had a positive view about the success of their group on each of the outcome topics that could be expected to have a bearing on the development, improvement and implementation of regionally relevant practices, including increased awareness of land and water degradation (78% positive), increased understanding of biodiversity conservation (76%), and increased understanding of sustainable farming (58%), and 61% said their group had contributed to changed land management practices in their area.

Assisting on-ground action that will contribute to learning and behavioural change

Most of the funds allocated through NLP are provided to groups for on-ground work. It is assumed that this work will contribute to the accomplishment of regional priorities and lead to learning and further action by landholders.

Landcare groups continue to undertake important on-ground work, including fencing to manage stock access to important habitat and enhance water quality; revegetation to address dryland salinity and increase habitat for important fauna and flora; and specific actions to control soil erosion, salinity, improve water quality and river health, and control pest plants and animals. The proportion of groups engaged in fencing and revegetation has declined, but the mean levels of on-ground work across all other topics surveyed are similar to those in 1998.

Respondents gave their highest rating (93% positive) of all the outcome measures for success in accomplishing important on-groundwork. A majority of respondents also said their group had improved the condition of land and water resources in their area (77%) and

had contributed to higher agricultural productivity in their area (55%). As we have explained earlier, most respondents thought their group had contributed to increased awareness of land and water degradation; understanding of biodiversity conservation and sustainable farming; and to changed land management practices in their area.

Seventy-one per cent of respondents said that Landcare had brought more resources into their area to address land and water degradation. At the same time, most respondents thought the availability of funds (65%) and labour (71%) were important constraints affecting the ability of their group to achieve its priorities.

Providing strategic direction and support for the volunteer Landcare movement and develop a Landcare ethic

It is important to remember that Landcare is a means to an end, not an end in itself. However, the underlying NRM context remains unchanged since 1998 and governments will continue to rely heavily on the efforts and investments of private landholders to address NRM issues and protect key assets. As this report demonstrates, Landcare groups continue to undertake important on-ground work that is addressing regional and national NRM priorities. Landcare groups also facilitate engagement, learning and action by NRM partners.

At the same time, survey data suggest there has been a decline in the health of the volunteer Landcare movement in Victoria. For example, there are now fewer groups, these groups include a smaller proportion of the landholders in their local communities as members, they are less active in engaging their wider communities, and there appears to be unsustainably high rates of member attrition. There is also evidence that the proportion of groups engaged in field days, demonstrations sites, fencing and revegetation has declined. Nevertheless, 2004 survey data suggest that 95% of groups are actively engaged in Landcare work and most respondents rated their group highly for success in delivering on-ground work over the longer-term. Evidence of much higher levels of group engagement with local government is a positive development and survey data suggest that concerns raised about the emerging relationship between CMA and groups may be misplaced.

The partnership with government continues to underpin Landcare group activity. Levels of satisfaction with support from government were mostly improved on those reported in 1998 (up for 5 of 6 topics), reversing a trend towards generally lower levels of satisfaction between 1995 and 1998. Satisfaction levels were higher for the provision of information and advice on land management (80%), assistance with grant applications (77%), and coordination of on-ground activities (61%); and lower for money or materials to manage land and water degradation (53%) and leadership and management training for group leaders (52%).

Survey respondents said that 42% of Landcare support should be allocated as money or materials for on-ground work, 23% to a coordinator to support group activity, 22% for labour to perform on-ground work and 13% for technical information and advice. Both the rank order and level of support for expenditure across the different topics are similar to 1998.

A small proportion of groups employed their own coordinators (29%), and most of these support staff worked part-time (71%) and worked across a number of groups (95%). Survey data provide strong affirmation of the contribution of group coordinators to communication with other groups, the flow of information to the group, and the group's capacity to develop and submit successful funding bids.

The 2004 survey sought respondent opinions on a number of topics identified in previous research as important influences on group outcomes. A number of these topics were linked to significantly higher levels of group activity. The clear message is that internal group leadership, management approaches and prevailing culture do influence group outcomes. For example, there were significant links between ranking on the index of activity and more positive perceptions about groups for the following topics:

- having people willing to take on leadership roles;
- the group has a clear idea of where it is headed (and having an action plan);
- providing new members with background information about the group;
- the group publicly acknowledging the contribution of members to projects;
- the group identifying a clear way of evaluating the success of projects;
- in recent years the group has taken the time to look back over its achievements;
- there is a strong social connexion or bond in the group;
- resources are shared fairly equally;
- people are willing to compromise to reach decisions acceptable to most members.

The validity of these findings was affirmed by the establishment of similar relationships for other independent variables. For example, more active groups (on-ground work and capacity building) in 2004 had significantly larger membership, a higher proportion of women members, higher levels of participation from most members, and were more successful in recruiting new members. They were also more likely to be developing action and catchment plans and to be involved in monitoring.

Most groups appear to have established a supportive culture, but many groups have not adopted relatively simple and effective organisational or management approaches. For example, 23% of respondents said their group did not provide background information to new members (an additional 22% were unsure); 20% said their group did not have a clear idea of where it was headed (28% unsure); and 29% said their group did not have a clear way of evaluating success (37% were unsure). These issues need to be addressed through a coherent program of support delivered at the state and regional levels [**Recommendation #9**].

Recommendations

1. NLP M&E project explores the reasons for the decrease in Landcare group members and the extent that it reflects a decline in the health of the volunteer movement. One approach would be to interview participants in groups (say 15 of those that indicated on returned surveys that they had merged, gone into recess or disbanded. Regional facilitators might also be invited to identify other groups that have done the same in 2005.
2. NLP M&E project identifies a representative sample of groups (N=50 from across the CMA regions and different levels of group activity in the 2004 survey) and monitors trends in recruitment and attrition using telephone interviews with group leaders. If the current high level of attrition continues, seek to identify reasons for that trend and ways of addressing the issue.
3. NLP M&E project should identify ways to strengthen the capacity of Landcare networks to sustain the health of the volunteer Landcare movement. The Handke Report provides some guidance, as does the Australian and international literature on rural development and Landcare.
4. NLP M&E project encourage the Victorian DSE to liaise with CSU to identify a representative sample of groups (N=50 from across the CMA regions and different levels of group activity in 2004) and use a telephone survey to monitor trends in perceptions of the relationship between CMA and Landcare.
5. NLP M&E project should invite Landcare Australia Ltd (LAL) to hold a one-day workshop to explore stakeholder views about ways of improving Landcare group and business links. Examples of successful partnerships, including some identified by 2004 survey respondents, need to be documented and provided to groups to encourage similar partnerships. LAL could also be required to broker industry - group partnerships, perhaps beginning through a pilot program in a region.
6. NLP M&E project should document the success of groups in Port Phillip and North Central regions engaging local government and publicise the key lessons to other groups.
7. NLP M&E project should recommend to DAFF that the proportion of Landcare groups engaged in developing subcatchment plans and in establishing annual action plans should become key performance indicators (KPI) for CMA receiving Australian Government NHT/NAP funding.
8. NLP M&E project team explore the reasons for the decline in group involvement in field days/ farm walks and trial plots and consider whether action needs to be taken to address this trend.
9. NLP M&E project liaise with the National Landcare Facilitator and state and regional Landcare Coordinators to develop a strategic approach to address the key internal group organisation/ management issues identified in this report.

CONTENTS

1. EXECUTIVE SUMMARY	i - viii
2. INTRODUCTION	1
2.1 Introduction	1
2.2 The National Landcare Program	1
2.3 The Victorian Landcare Survey	2
2.4 Evaluating Landcare	3
2.5 Findings from Landcare evaluations	5
3. RESEARCH APPROACH	7
3.1 Survey topics	7
3.2 Measures of group outcomes	7
3.3 Survey process and response rate	8
FINDINGS	10
4. ENGAGEMENT OF INDUSTRY AND WIDER COMMUNITY	10
4.1 Number of groups	10
4.2 Landcare membership	10
4.3 Rural landholders in Landcare	11
4.4 Recruitment	12
4.5 Attrition	12
4.6 Participation rates	14
4.7 Wider community engagement: visitors assisting or studying Landcare	16
4.8 Engagement with Indigenous groups	18
4.9 Engagement with non-farmers	18
4.10 Landcare networks	20
4.10.1 Introduction	20
4.10.2 Group membership of networks	20
4.10.3 Value of networks to groups	20
4.11 Approaches to engagement	21
4.12 Participant perceptions of engagement	23
5. PARTNERSHIPS BETWEEN COMMUNITY, INDUSTRY and GOVERNMENT	24
5.1 Assistance from outside groups	24
5.2 Government as partner	25
5.2.1 Introduction	25
5.2.2 Dollar value of state, federal and local govt assistance	25
5.3 Frequency and nature of contact between the group and agency, CMA and local government contact staff	26
5.4 Perceptions of the role of agency or catchment management contact staff	27
5.5 Adequacy of support from government	28
5.6 Type of support required from government over the next three years	30
5.7 Catchment Management Authorities	31
5.8 Industry engagement	31
6. INTEGRATING NRM INTO BUSINESS and PROPERTY PLANS	32
6.1 Property and catchment planning and priority setting (action planning)	32
6.2 Perceptions of group outcomes	32

7. FACILITATING REGIONALLY RELEVANT MANAGEMENT PRACTICES	33
7.1 Introduction	33
7.2 Field days/farm walks and demonstration/trial plots	33
7.3 Discussions likely to contribute to regionally relevant management practices	34
7.4 Involvement in monitoring and evaluation	34
7.5 Perceptions of outcomes	35
8. ON-GROUND WORK THAT LEADS TO LEARNING and ACTION	36
8.1 Introduction	36
8.2 Fencing erected to improve land and water management	36
8.3 Vegetation management	37
8.4 Action to control soil erosion, salinity, rabbits, weeds and foxes and to improve water quality/river health	37
8.5 Perceptions of outcomes	37
9. PROVIDING STRATEGIC DIRECTION and SUPPORT FOR THE LANDCARE MOVEMENT	39
9.1 Introduction	39
9.2 The index of group activity	39
9.3 Perceptions of Landcare organisation and management	40
9.4 Characteristics of active and less active groups	41
9.5 Factors affecting performance on the index of group activity	41
9.6 Regional patterns in group activity and perceptions of outcomes	45
ACKNOWLEDGEMENTS	48
REFERENCES	49
APPENDIX	52
FIGURES	
FIGURE 1	9
FIGURE 2	11
TABLES	
TABLE 1	3
TABLE 2	13
TABLE 3	14
TABLE 4	15
TABLE 5	16
TABLE 6	17
TABLE 7	19
TABLE 8	21
TABLE 9	22
TABLE 10	24
TABLE 11	26
TABLE 12	28
TABLE 13	29
TABLE 14	30
TABLE 15	34
TABLE 16	43
TABLE 17	44
TABLE 18	45
TABLE 19	47

2. Introduction

2.1 Introduction

This report presents the findings from the 2004 survey of Victorian Landcare groups. With previous surveys in 1991/92 (Curtis et al. 1993), 1993/94 (Curtis 1995), 1995/96 (Curtis 1996) and 1998 (Curtis and Van Nouhuys 1999), this is the only state-wide longitudinal study of Landcare-type groups.

Surveys were distributed in October/November by regional Landcare Facilitators to all community-based NRM groups with a primary focus on private land. Group leaders or an informed member were asked to complete and return surveys to the researchers at Charles Sturt University.

The survey was funded by the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) to complement other data collection as part of the National Landcare Program (NLP) Monitoring and Evaluation (M&E) project being undertaken by the Bureau of Rural Sciences (BRS) and the Australian Bureau of Agriculture and Resource Economics (ABARE). Substantial in-kind contributions to the survey were made by the Department of Sustainability and Environment (DSE) and Victoria's ten Catchment Management Authorities (CMA). For example, DSE and CMA staff contributed to survey development and undertook much of the survey mail out tasks. Nevertheless, the principal client for this report is the DAFF NLP M&E project.

2.2 The National Landcare Program

Recognising the potential of Landcare groups as a potent force for improved NRM, the Australian Government committed spending of \$360 million in the *Decade of Landcare* program that commenced in 1989. The program, called the National Landcare Program (NLP) in 1992, provided limited government funding for coordination and project work, principally for education and demonstration activities to be undertaken by groups in collaboration with state agency advisors.

Establishment of the five-year, \$1.25 billion Natural Heritage Trust (NHT) in 1997 significantly altered the course of the NLP in that Landcare became part of the "one-stop shop" under NHT and there was substantial funding for on-ground work. In 2003/04, the NLP again became a stand-alone program, with a budget of \$38.3 million. These funds were allocated across two broad program areas:

1. NLP community support (\$28.12 million in 2003/04) which was targeted at on-ground work by industry and community groups to address priorities identified in CMA plans.
2. NLP national component (\$10.18 million in 2003/04) which included:
 - Landcare support – Australian Landcare Council, National Landcare Facilitator, Landcare Australia Limited;
 - Natural resource innovation grants;
 - Industry partnerships.

In its latest iteration, the NLP has funding of \$159.5 million over the four years commencing 2004-05, with investments across similar sub-programs to those operating in 2003/04.

The NLP is funded through the Australian government *Natural Resources Management (Financial Assistance) Act* of 1992. According to the *Act* the primary objective of the NLP is to '... facilitate the development and implementation of integrated approaches to natural resources management in Australia that are efficient, sustainable and equitable and consistent with the principles of ecologically sustainable development.' Further reading of

the *Act* and program documentation, and discussion with key program managers, suggested that the goal of the NLP is: *to enable natural resource managers to identify, develop and implement improved management practices.*

As part of the NLP M&E project, a suite of NLP intermediate objectives were articulated to provide a basis for program evaluation. These objectives are to:

1. Engage industry and the wider community in NRM at regional and national scales.
2. Promote community, industry and government partnerships.
3. Assist on-ground action by community and industry groups that will contribute to learning and behavioural change.
4. Increase awareness, knowledge and skills of natural resource managers.
5. Facilitate development of regionally relevant management practices.
6. Integrate NRM into business and property plans at the enterprise level.
7. Provide strategic direction and support for the volunteer Landcare movement and develop a Landcare ethic amongst natural resource managers and the wider community.
8. Develop and maintain institutional arrangements.
9. Support processes to help clarify roles and responsibilities for the management of natural resources.

2.3 The Victorian Landcare Survey

The Victorian Landcare group survey has been widely recognised as a cost effective method of gathering data which contributes to:

1. understanding of what groups do and how they operate, including on-ground work and activities that focus more directly on capacity building, including field days, farm walks, workshops and meetings;
2. assessing the effectiveness of groups and the impact of factors likely to affect group performance, including leadership, resources, group planning, and burnout amongst members;
3. understanding trends in participation; the nature of agency/group relationships, including between Landcare groups and CMA; and
4. gathering information about group needs.

Given the existence of longitudinal data, the NLP M&E project staff identified the Victorian Landcare group survey as an important source of information to assess outcomes for a number of NLP intermediate objectives, particularly #7, but also #1, 2, 3, 5 & 6. The intention was for the survey to gather data that would inform judgements about the health of the volunteer Landcare movement in terms of the ability of Landcare to contribute to program outcomes. In this report, data from different survey topics has been assembled under headings that relate to specific NLP M&E intermediate objectives (with the exceptions of #4, 8 & 9).

As might be expected, there have been some changes to the survey instrument over time, however, where possible, comparisons are made with 1995 and 1998 survey data. For some topics it has been possible to go back as far as 1993. Brief comparisons across CMA are provided in the body of the report, with more detailed information available in table format as appendices.

The original proposal was to survey half of all the Victorian groups operating in 2004 that were attempting to improve land and water management on private land. With the support of DSE and CMA staff, we were able to undertake a census of all groups. This is the first time that a census of Landcare groups has been taken. In previous surveys about half of all groups were randomly sampled.

Our correspondence with the regional Landcare Facilitators suggested there were 721 groups operating in 2004. Landcare Facilitators distributed surveys to 709 groups. With 362 surveys returned, a final response rate of 51% was achieved. Some surveys were returned from groups in recess or disbanded, and some returned surveys had not been filled out, resulting in 343 useable surveys [Table 1].

Table 1

Number of respondent groups by CMA region

Landcare Victoria Survey 2004 N=343

CMA Region	Surveys Distributed	Surveys Returned	Response Rate	Returned disbanded /in recess	Returned unuseable	Returned useable
Corangamite	75	26	35%	2	1	24
East Gippsland	35	22	63%	0	0	22
Glenelg-Hopkins	72	49	68%	6	0	43
Goulburn-Broken	100	51	51%	1	1	50
Mallee	27	12	44%	0	1	12
North Central	142	48	34%	2	0	42
North East	48	28	58%	0	0	28
Port Phillip	78	43	55%	1	0	42
West Gippsland	74	47	64%	2	0	45
Wimmera	58	36	62%	1	1	35
State	709	362	51%	15	4	343

2.4 Evaluating Landcare

In this section we provide the context for the 2004 Victorian Landcare group survey. This information has largely been drawn from two review papers: a 2003 paper published in the Journal of the American Water Resources Association (Curtis et al. 2003); and a background document prepared for the Handke Report on the Review of the National Landcare program (Commonwealth of Australia 2004). This brief review includes an overview of the theoretical underpinnings of Landcare, an overview of the NLP program logic and how that can be applied to the task of Landcare evaluation, and a summary of Landcare achievements and limitations.

Landcare can be viewed as part of a lengthy process where Victorians adapted emerging theories of rural development to an Australian context. A small vanguard of soil conservationists, extension agents and farmers were attracted by the core elements of rural development theory that emphasised 1) self help supported by change agents; 2) human resource development rather than technology transfer; 3) public participation; and 4) cooperative efforts at the local community scale (Curtis 1998). Early experience with groups in Victoria and Western Australia confirmed overseas evidence that participation through local organisations could accomplish broad-based rural development (Chambers 1983; Esman and Uphoff 1984).

Landcare membership is voluntary and open to any local person. Most groups have developed in rural areas where most activity occurs. Groups frequently operate at catchment or sub-catchment scales and are encouraged to view their activities holistically, using a systems approach. Groups are autonomous in that they are not formally linked to government and members usually determine group structures, processes and priorities. While the focus of group activity is usually on privately owned or leased land managed by group members, groups also work on roadsides, reserves and other public lands. Groups are involved in a variety of rural development activities across the broad spectrum of community education (or capacity building) and on-ground restoration work (Curtis and De Lacy 1995).

As explained in the section 2.2, the NLP initially had limited government funding, principally for education and demonstration activities. Establishment of the NHT in 1997 increased funding for on-ground work and employed cost-sharing principles to enable community and private benefits from specific works to be identified. In 1999-2000 alone, the NHT funded 870 Landcare projects, worth \$71 million (Wonder 2000). Since 2003/04, the NLP has again become a stand-alone program, with increased focus on addressing sustainable agriculture and for projects linked to priorities identified in CMA plans.

Although the Australian Government has greater financial resources, NRM authority rests primarily with the six Australian states and the Northern Territory and Australian Capital Territory. By 1992, most Australian states had established regional Catchment Management Committees (CMC). In Victoria, the Catchment Management Authorities (CMA) are comprised of ministerial appointees from regional communities, including Landcare representatives. CMA are responsible for developing and implementing regional catchment strategies that guide the expenditure of state and federal natural resource management funds. Landcare groups have become an important delivery mechanism for CMA but they are not formally linked (Curtis and Lockwood 2000; Ewing 2000).

Evaluators attempt to assess the value of programs in order to improve their efficacy in ameliorating social problems. Program evaluation is an important but challenging undertaking and there is a plethora of expert opinions about how this should be accomplished. Evaluation of Landcare provides particular challenges in that there is a large number of stakeholders, considerable variation in program implementation, and in the beginning, there was little documentation about the underlying program logic. There is also the issue of what can reasonably be expected of volunteer groups working with limited resources to address difficult issues where there is considerable uncertainty about how to proceed.

As might be expected, there has been much debate about these topics and a variety of approaches adopted. Most Australians approaching the evaluation of Landcare have agreed that it is unreasonable to assess group effectiveness by measuring changes in the biophysical condition of catchments. Instead, the focus has been on exploring Landcare contributions to learning and action (Curtis et al. 2000).

There is a substantial body of literature that identifies the unravelling of program logic or underlying theory as the critical first step in program evaluation. Making the program logic explicit is the first step in identifying intermediate objectives that can be employed to assess program effectiveness. Evaluators can turn to a number of sources in their efforts to unravel program logic: they can approach program staff, clients, and other stakeholders for their views; they can review literature on the program under scrutiny, or similar programs; they can examine program documentation; and they can observe the program in action (Curtis et al. 2000).

It seems that from the Australian Government perspective, Landcare was a catalytic rural development program intended to engage a large proportion of the rural population and produce more informed, skilled, and adaptive private resource managers. In turn, these managers would adopt a stronger stewardship ethic and increase their adoption of recommended practices that would assist the move to more sustainable agriculture and enhance biodiversity conservation (Curtis and De Lacy 1996a).

2.5 Findings from Landcare evaluations

The evidence to date, including that gathered through previous Victorian Landcare group surveys, suggests that Landcare is an Australian success story. Landcare groups have mobilised a large cross-section of the rural population. By 1998, there were 890 Landcare groups operating across Victoria with an estimated membership of 27,500. In those areas where a Landcare group operated, about 46% of rural properties had a Landcare member (Curtis and Van Nouhuys 1999). Groups provide opportunities for learning by doing and through interaction with peers (Chamala 1995). Group processes have enabled participants to discuss conflicting views in a reasonable fashion and have generally enhanced social cohesion, increased the capacity of rural communities to attract resources from governments and better equipped them to respond to change (Alexander 1995; Curtis and De Lacy 1995). With strong agency commitment to participatory processes, agency staff and Landcare members have established robust, productive partnerships and avoided many of the perils of co-optation (Curtis 1998). Landcare participation has also increased awareness of issues and enhanced landholder skills and knowledge and contributed to increased adoption of best management practices (Mues et al. 1998; Curtis and De Lacy 1996b). There are also examples where group activity has had substantial impacts on land and water degradation at the local or subcatchment scale (Cullen et al. 2003; Commonwealth of Australia 1997; Campbell 1994).

Evaluations of the NHT suggest that government investment through Landcare has been more than matched by community contributions (Hill 2000). Landcare participants are represented on regional CMC and other important fora and are contributing to important natural resource management decision-making (Ewing 2000). By enhancing citizen competency, providing continuity of community representation and acting as a place of retained knowledge, Landcare groups and their emerging networks, appear likely to bridge the gap between the demands of adaptive management and the limitations of stakeholder participation (Curtis et al. 1999).

Despite these impressive achievements, there have been concerns about Landcare program logic and implementation (Lawrence 2000; Curtis and De Lacy 1996b; Curtis 2000). As much as Landcare has achieved, this research suggests there is more that could be accomplished. At the same time, some critical group management issues have been identified.

Evidence from the 1998 Victorian survey suggested that 10% of groups were undertaking little activity (Curtis and Van Nouhuys 1999). There is also evidence of burnout amongst Landcare members and group coordinators and links between burnout and factors identified

by research as affecting group outcomes (Byron and Curtis 2001; 2002a, b, c, d; Curtis et al. 2001). Burnout has been described as a process where continued exposure to stressful situations leads to a syndrome characterised by emotional exhaustion, depersonalisation and reduced personal accomplishment (Maslach and Jackson 1981). Over time, increased levels of burnout could be expected to lead to reduced personal engagement, group activity and outcomes (Byron and Curtis 2001; Byron and Curtis 2002a, b, c, d).

In summary, we know that:

1. In most groups there has been little discussion of leadership succession, and with high administrative workloads for group leaders (up to 17 hours per week per group), most groups have difficulty attracting leadership candidates (Curtis 2000).
2. A substantial minority of groups have not set annual priorities, and amongst those that have, there has often been no documented outcome of these processes (Curtis 2000).
3. Too much energy is often expended developing project proposals and insufficient attention is paid to identifying project outcomes, particularly the important lessons learned (Curtis 2000).
4. Only minimal attention has been given to the critical tasks of volunteer member and leader retention and recruitment (Curtis 2000).
5. There are large differences in the amount of funds received by groups and in their access to paid coordinators. Groups without access to a paid coordinator appear to be disadvantaged in terms of their ability to successfully engage national NRM programs (Curtis 2000).
6. A related issue is that studies in Queensland and Victoria show that paid coordinators are mostly young, inexperienced, poorly trained, and inadequately supported as they attempt to balance conflicting role interpretations by groups and agencies (Byron and Curtis 2002d; Byron and Curtis 2001).
7. We now have a substantial body of evidence from studies in three states (Queensland, NSW and Victoria) suggesting that these management issues lead to higher burnout. These studies also suggest that burnout is impacting on group outcomes (Byron and Curtis 2002a, b, c; Curtis et al. 2001).

3. Research approach

3.1 Survey topics

The 2004 survey included questions seeking information on the following topics:

- Group membership, leadership roles, and levels of member participation in group activities;
- On-ground work performed, coordinated or funded by groups;
- Community education or capacity building work performed by groups;
- Involvement of members and groups in planning and priority setting at the property and district scales;
- Group engagement with landholders, Indigenous groups, industry, CMA and government;
- Perceptions of group outcomes over the longer-term across the range of intermediate NLP program objectives;
- Perceptions of group functioning and constraints to groups achieving their priorities;
- Perceptions of the role of government as a partner in Landcare;
- Priorities for the allocation of government resources for Landcare; and
- Group involvement in Landcare networks and perceived outcomes of networks.

3.2 Measures of group outcomes

As part of our earlier analysis of Victorian Landcare surveys, levels of group activity were used as indicators of group effectiveness. Using activity levels as a surrogate for effectiveness has its limitations. For example, this approach does not take into account the situation where a group has a low level of activity in a particular year but has a track record of substantial achievements. For the 2004 survey, we also included questions asking respondents to rate the extent of group success over the longer-term in achieving a range of possible Landcare group outcomes.

Ranking groups according to activity levels has provided useful information. For example, it is possible to identify the proportion of groups operating at high or low levels of activity and therefore likely to be making a meaningful contribution to the achievement of NLP goals. Index construction also allows the testing for relationships between group ranking and independent variables likely to affect organisational effectiveness. This information can provide useful feedback to program managers as they seek to improve the NLP.

As in the past, groups in the 2004 survey were ranked according to their level of activity in the previous year. Equal weighting was given to measures selected to contribute to an index of 'work undertaken' and an index of 'community involvement/education'. This approach was adopted because of the view that effective Landcare groups should be active across a range of issues and topics. A group's scores on these indices were then combined to calculate a 'final activity' index. Groups operating for less than one year are normally in their establishment phase and cannot be expected to have undertaken substantial on-ground work. For this reason, groups operating for less than one year were not included in ranking calculations. Where information was missing for variables used in index calculations, a zero was allocated to that group on that variable.

Measures selected to contribute to the Victorian indices of 'work undertaken' and 'community involvement/education' are summarised in Figure 1. Measures included in each

index are much as they were in 1998. However, there were changes between 1995 and 1998 (Curtis and Van Nouhuys 1999).

Readers attempting to interpret the results of bivariate analyses should note that a higher numerical score (ranking value of say, 339 as opposed to 1 [Table 16]), indicated a better group activity performance on the index. In this report, for analyses testing associations between the index and independent variables, a higher group performance on the index and an independent variable would usually produce a positive correlation coefficient.

The 2004 survey also included questions asking respondents to rate their group's success over the longer-term across a range of possible Landcare group outcomes. The list of possible outcomes follows the Landcare program logic explained earlier. Many of these items had been employed in our previous research (Curtis and De Lacy 1996a; Curtis et al. 2001; Byron and Curtis 2001). The list of potential outcomes included:

- attracted widespread participation from landholders;
- improved communications between landholders;
- built trust amongst landholders;
- enhanced a sense of community;
- increased awareness of land and water degradation;
- increased understanding of what sustainable farming involves;
- contributed to greater cooperation amongst landholders to address NRM issues;
- contributed to changed land management practices;
- brought more resources to address land and water degradation;
- completed important on-ground work; and
- improved agricultural productivity.

With the 2004 survey data it was therefore possible to compare the extent that respondent perceptions of outcomes over the longer-term correlated with outcomes as measured by the indices of group activity for 2004. There was also the opportunity to use these new data to explore in more depth the factors contributing to higher or lower group performance.

3.3 Survey process and response rate

The survey design and mail out processes were undertaken using a highly modified version of Dillman's (1979) *Total Design Method*. A draft 12 page, B5 format survey instrument was developed based on the 1998 survey and more recent work by Curtis et al. (2001), and Byron and Curtis (2001; 2002b). This draft survey was then reviewed by DSE state-wide Landcare support staff. A second draft survey was pre-tested at a workshop in the Grampians involving most of the Victorian regional Landcare Facilitators. DSE staff and a smaller number of regional Facilitators provided additional feedback on a third draft survey.

At the suggestion of the Regional Facilitator meeting in the Grampians, it was agreed to take a census of all Victorian Landcare groups rather than a sample of half of the approximately 721 Victorian groups thought to be operating at that time. The difficulty, and it remains at the time this report went to the printer, was to precisely identify the number of Landcare groups operating in each region [refer to Table 1].

Figure 1

Measures contributing to Victorian (2004) indices of group activity

Index of 'work undertaken' [past 12 months]	Index of 'community involvement/education' [past 12 months]
<ul style="list-style-type: none"> • number of trees & shrubs planted or direct seeded by group members • length of fencing erected by the group for all group projects • number of erosion and salinity control structures erected; number of water quality & river health, rabbit, fox & weed control activities. 	<ul style="list-style-type: none"> • number of general meetings held • number of visitors assisting or studying Landcare group work • number of field days/farm walks held • percentage of land holders in area who are group members • number of demonstration sites established.

Each CMA has a list of the Landcare-type groups in their region, but in many instances these are not completely accurate. Some of the reasons for this include: variable levels of commitment amongst regional staff to maintaining accurate lists, often compounded by high turnover in Landcare support staff; instances where regional staff were not sure whether a group was in recess or had become part of a larger network; and uncertainty about whether the primary focus of a group was on public land and therefore fell outside the scope of the 2004 survey.

The Grampians meeting also clarified a number of important issues around how the mail out process would be implemented. It was agreed that surveys and an accompanying cover letter would be distributed in November 2004 by regional Landcare Facilitators to all community-based NRM groups with a primary focus on private land. Group leaders or an informed member would be asked to complete and return surveys to the researchers at CSU using a stamped, addressed envelope provided in the survey package. Regional facilitators also agreed to remind survey recipients to complete surveys and to provide CSU researchers with the number of surveys distributed in their region.

The October/November timing for survey distribution coincided with harvest time in the cropping regions. The potential for this timing to delay survey completion, and possibly affect the response rate, was recognised and discussed at the Grampians meeting. Harvesting, and unusually heavy summer rains in Western Victoria during the 2004 harvest period did delay survey returns. To a large extent, this issue was overcome through communications with groups indicating that the survey deadline had been extended.

Our correspondence with the regional Landcare Facilitators suggested there were 721 groups operating in 2004. Landcare Facilitators distributed surveys to 709 groups, and with 362 surveys returned, a final response rate of 51% was achieved. Fifteen surveys were returned from groups that had gone into recess or disbanded, and 4 surveys were incomplete and unusable, giving a final useable sample (N) of 343 [Table 1].

Findings

4. Engagement of industry and wider community

4.1 Number of groups

Landcare group numbers increased rapidly in the early part of the 1990's, from 100 groups in July 1990 to 407 in 1993 and 700 in 1995. It seems that group numbers reached an all-time high of 890 in 1998 and declined to 721 in 2004, a decline of 19% without including the 15 groups that had gone into recess or disbanded [Table 1].

The 2004 survey included only those groups with '... a primary focus of activities on private land.' The focus on private land excluded groups that are primarily working on public land. This cohort represented a very small proportion of all groups in 1998 (3%), so the decline in the number of groups is not due to the exclusion of these groups from the 2004 survey.

This survey is the first time there has been evidence that groups are disbanding, going into recess, or merging with others faster than they are forming. Information provided in the 2004 survey suggests that very few new groups are being established. Indeed, of the 343 useable surveys, only four were from groups that had formed in the past 12 months. With fewer groups, it is clear that the Landcare movement has reduced capacity to engage landholders and the wider community in the tasks of managing land and water degradation.

It is possible that groups go into recess or disband because they have accomplished what they set out to do. Groups may merge with others to enhance their capacity to meet member needs or goals. It is also possible that the declining number of groups indicates that there are problems with the health of the Victorian Landcare movement. One of the first steps in explaining this trend would be to commission research exploring the history and outcomes of the groups identified as disbanded or in recess.

4.2 Landcare membership

The mean Landcare group membership in 2004 was 44 per group, suggesting that the 721 groups operating in 2004 had a total membership of 23,220. With a reduction in the number of groups the total Victorian Landcare membership has declined substantially from 27,590 in 1998 to 23,220, close to the level recorded in 1995 [Figure 2]. Landcare is engaging fewer landholders in the tasks of managing land and water degradation.

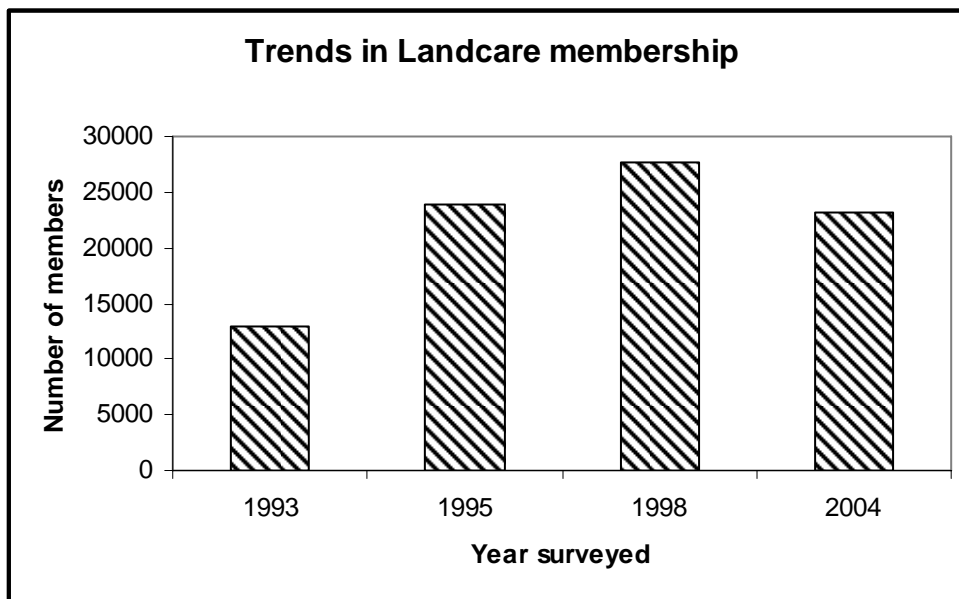
Although the mean membership per group was much higher in 2004 (up from 31 in 1998; 34 in 1995; and 33 in 1993), there has been a much smaller increase in the median membership (from 24 in 1998 to 26 in 2004). The trend to groups merging appears the mostly likely explanation for this increase in group size. The large difference between the mean and median figures is consistent with this interpretation in that the mean is more readily affected by outliers, in this case, probably the large membership numbers of some networks.

There are substantial regional differences in the median membership per group (from 16 in Corangamite to 39 in the North East, and 62 in the Mallee). This regional pattern is consistent with past trends. With the exception of the Mallee, those regions with larger population centres and more intensive land uses and therefore rural population densities, have tended to have larger median group sizes [Appendix: Table 1].

Figure 2

Trends in Landcare membership

Landcare Victoria Survey 2004 N=343



Comparison of 2004 data with that from previous years suggests there have been substantial changes in the median membership per group in some regions. Since 1995, median size per group has declined in Corangamite and the North East; remained the same in West and East Gippsland, Glenelg/Hopkins, Goulburn Broken, and North Central; and increased in Wimmera, Port Phillip, and the Mallee. Of these trends, the most remarkable would seem to be the consistent trend to declining median size in Corangamite (30 in 1995, 26 in 1998 and 16 in 2004). These changes may reflect trends in the health of the Landcare movement in particular regions. For example, increased median group size might be expected to indicate that groups were able to attract and hold members on the basis of a strong performance. However, median size per group may also increase as a result of group mergers that have been initiated because of declining group health.

4.3 Rural landholders in Landcare

Landcare membership as a percentage of properties in an area provides a useful measure of the effectiveness of Landcare in engaging landholders. As in the past, 2004 survey respondents were asked to indicate the number of properties in their area and the number of properties represented by members of their group.

In 2004, 41% of all landholders in the Landcare areas surveyed were Landcare members. This level of engagement with rural landholders is a substantial achievement, well beyond that typically achieved by rural extension programs (Curtis and De Lacy 1996b).

Comparison of 2004 data with that from previous surveys reveals a consistent trend to lower levels of landholder engagement through Landcare in that the mean proportion of all landholders in Landcare has trended down - from 51% in 1993, to 50% in 1995, 46% in 1998 and 41% in 2004.

There are substantial regional differences in the proportion of landholders engaged in Landcare (from a mean of 29% in Goulburn Broken to 76% in the Mallee) [Appendix: Table 2]. Over the period from 1995 to 2004, only the Mallee and Wimmera regions reported

increased mean Landcare memberships as a proportion of all landholders in Landcare areas. No clear trend was observed for the Goulburn Broken or the North East; and declines occurred in Corangamite, Gippsland East and West, Glenelg Hopkins, North Central and Port Phillip.

4.4 Recruitment

Recruitment can be both a lagging and a leading indicator of group health in that it reflects on the past health of a group and also impacts on the capacity of groups to accomplish their objectives and be viable long-term. Amongst other things, new members provide an opportunity to increase the sphere of Landcare group influence and capacity to achieve their goals, enable the group to capture new ideas, and expand their pool of potential group leaders.

The 2004 survey included a question seeking information about the number of new members joining each group during 2004. Excluding groups operating for less than a year (4 groups, so N = 339), 273 groups (80%) were reported to have recruited new members and for these groups, the mean recruitment rate was 12% of all Landcare members [Table 2]. Extrapolating to all Victorian groups (N=721), there were 3,511 new Landcare members in 2004.

In the past, the mean recruitment rate was consistently in the range of 15% (1993) to 16% (1998) of all members. The 2004 data suggest there has been a move to a lower level of Landcare group recruitment. Whether this is a short-term aberration or the beginning of a longer-term trend to lower levels of recruitment will only be confirmed by future surveys.

There are substantial regional differences in the level of Landcare group recruitment (from 4% and 5% in the Mallee and Wimmera, to 16% and 17% in Corangamite and Port Phillip) [Table 2]. As in the past, it seems that regions close to Melbourne or large centres have substantially higher recruitment levels. Over the period from 1995 to 2004, only East Gippsland and North Central reported increased levels of recruitment. No clear trend was observed for Corangamite, Glenelg Hopkins or West Gippsland; and declines occurred in the Goulburn Broken, North East, Port Phillip and Wimmera [Table 2].

4.5 Attrition

If groups lose members and do not replace them with recruits they may reach a size where they find it difficult to function effectively in terms of sharing the work of running a group and their ability to engage a substantial proportion of their community. Information about recruitment therefore needs to be complemented by information about the level of attrition, or drop out rate.

Attrition information was collected for the first time in the 2004 survey. The question employed asked for the number of 2003 members who didn't attend any group activities during 2004. Of course, it is possible that a 2003 member who didn't attend any activities in 2004 will continue to see themselves as Landcare members. They may simply have had other commitments when Landcare activities were scheduled. It is also possible that those who didn't participate in 2004 had not participated for some time (even though the question specifically referred to 2003 members).

Table 2**Recruitment rate - new members in 2004**

Landcare Victoria Survey 2004 N=343

Region	n	Total new members	2004 groups that had new members	2004 Recruit rate	1998 Recruit rate	1995 Recruit rate
Corangamite	20	132	83%	16%	11%	17%
East Gippsland	17	55	71%	14%	<i>na</i>	6%
Glenelg Hopkins	32	51	42%	8%	18%	10%
Goulburn Broken	42	181	78%	14%	16%	28%
Mallee	11	21	20%	4%	6%	5%
North Central	36	181	73%	12%	23%	7%
North East	21	117	73%	13%	19%	21%
Port Phillip	35	452	93%	17%	18%	22%
West Gippsland	34	153	84%	13%	<i>na</i>	13%
Wimmera	25	69	47%	5%	5%	13%
State	273	1,412	71%	12%	16%	15%

Excluding groups operating for less than a year (4 groups, so N=339), 290 groups (82%) reported members who dropped out and for these groups, the mean attrition rate was 30% of all members [Table 3].

With the 2004 survey data it was possible for the first time to make a direct comparison of recruitment and retention. Overall, there was a net loss of 18% of the total 2004 membership for the respondent groups [Table 3]. Extrapolating to all Victorian groups (N=721), there were 5,663 dropouts in 2004, well above the 3,511 Landcare recruits.

The high level of attrition identified suggests Landcare is engaging a much smaller proportion of the wider community. These data also suggest that the long-term health of the Landcare movement is deteriorating.

It is also possible that some of those who were reported as not participating in any group activity during 2004 were also inactive in 2003 and the attrition rate is measuring changes in participation over a longer time frame. The potentially serious impact of high attrition rates identified in this survey warrants further investigation. One approach would be to identify a sample of groups with high attrition rates and use telephone or on-site interviews with group leaders to investigate attrition and recruitment trends.

Table 3**Member attrition and recruitment**

Landcare Victoria Survey 2004 N=339

Region	n	Total attrition	Total members	Attrition rate	New members	Net
Corangamite	16	297	1,471	20%	132	-165
East Gippsland	21	149	603	25%	55	-94
Glenelg Hopkins	33	251	895	28%	51	-200
Goulburn Broken	45	486	1,682	29%	181	-305
Mallee	10	437	1,087	40%	21	-416
North Central	38	584	1,708	34%	181	-403
North East	22	383	1,340	29%	117	-266
Port Phillip	35	779	2,328	33%	452	-327
West Gippsland	43	582	1,348	43%	153	-428
Wimmera	27	277	1,679	16%	69	-208
State	290	4,225	14,141	30%	1,412	-2,812

Again, there were some clear regional patterns in attrition rates. Attrition rates were lower in the Wimmera, Corangamite, East Gippsland, Glenelg Hopkins, Goulburn Broken and the North East; and higher in Port Phillip, North Central, Mallee and West Gippsland [Table 3].

4.6 Participation rates

Survey respondents were asked to compare the average level of member participation in group activities in 2003 and 2004. To summarise these data, the five response options in the survey have been collapsed into 'lower', 'about the same' and 'higher'.

Most respondents (58%) said member participation in 2004 was about the same as in 2003. Participation was considered lower for 2004 in 20% of groups and higher in 22% of groups [Table 4].

Table 4**Landcare member participation for 2004 compared to 2003 (by CMA region)**

Landcare Victoria Survey 2004 N=339

Region	n	Lower	Same	Higher
Corangamite	23	26%	43%	30%
East Gippsland	22	14%	68%	18%
Glenelg Hopkins	38	21%	71%	8%
Goulburn Broken	48	27%	48%	25%
Mallee	12	0%	92%	8%
North Central	42	19%	57%	24%
North East	25	20%	56%	24%
Port Phillip	40	13%	63%	25%
West Gippsland	44	23%	55%	23%
Wimmera	33	21%	55%	24%
State	327	20%	58%	22%

Few substantial trends can be identified in the regional data. For example, the Goulburn Broken and Corangamite had the highest proportions of groups with lower levels of member participation in 2004, however they also had the most groups with higher participation rates in 2004 [Table 4]. Port Phillip was probably the best performed region on this measure in that almost double the proportion of groups had higher participation compared to the proportion of groups with lower participation [Table 4].

Comparison of findings for surveys from 1993 to 2004 suggests there has not been a significant decline or even a substantial trend towards a decline in the level of participation amongst those who remain members [Table 5].

Table 5

Landcare group participation rate trends 1993 – 2004

Landcare Victoria Survey 2004 N=339

Year	Lower	Same	Higher
2004	20%	58%	22%
1998	15%	56%	29%
1995	17%	64%	19%
1993	14%	58%	28%

4.7 Wider community engagement through visitors assisting or studying Landcare

Landcare group impact extends beyond the immediate group to neighbouring landholders and the wider community who participate in group activities or observe Landcare work (Curtis and De Lacy 1996a). The capacity of groups to effectively manage land and water degradation issues is also enhanced if they can enlist assistance from others outside their group membership (Curtis and De Lacy 1995). The 2004 survey included questions seeking information on the number of visitors helping the group with on-ground work and the number of visitors studying Landcare work.

In 2004, 43% of the respondent groups had visitors directly helping with Landcare work (n=293) and 35% had visitors studying the work undertaken by the group (n=291). There was a median of 10 visitors assisting and 10 visitors studying Landcare work [Table 6].

Landcare continues to engage a substantial number of community members beyond the immediate Landcare group members. In 2004, 60% of the respondent groups (n= 291) reported visitors for a total of 12,222 people either assisting or studying Landcare work. Extrapolating to the total of 721 groups operating in 2004 suggests a total of 30,282.

The 2004 survey data highlight declining levels of engagement with the wider community through visitors assisting or studying Landcare work. Visitors assisting Landcare work were reported by 73% of groups in 1993, 80% in 1995, but only 43% in 2004 (1998 data is not available). Visitors studying Landcare work were reported by 83% in 1993, 81% in 1995, 43% in 1998 and 35% in 2004. Although there were substantial numbers of visitors to Landcare areas in 2004, the total number of visitors had declined from the estimated totals of 37,380 in 1998 and 40,000 in 1995.

Table 6**Visitors and wider community engagement - visitors who helped, studied****Landcare**

Victoria Landcare Survey 2004

N=343

	Visitors Assisting n=293			Visitors Studying n=291			All Visitors n=293	
Region	n Yes	Median	Total	n Yes	Median	Total	Total n	All Total
Corangamite	10	8	121	6	13	2,120	11	2,241
East Gippsland	3	10	62	4	10	72	6	134
Glenelg Hopkins	13	8	509	7	10	105	16	614
Goulburn Broken	21	10	1,833	18	9	681	28	2,514
Mallee	6	25	214	8	8	155	8	369
North Central	14	9	135	15	10	324	22	459
North East	14	10	372	8	30	297	18	669
Port Phillip	24	10	3,462	15	3	214	30	3,676
West Gippsland	14	7	616	12	4	117	22	733
Wimmera	8	31	463	9	20	350	14	813
State	127	10	7,787	102	10	4,435	175	12,222

The regional data show large differences in the number of visitors assisting, and to a lesser extent, with visitors studying Landcare work [Table 6]. Port Phillip and Goulburn Broken were the most successful regions in attracting visitors to assist with Landcare work, followed by West Gippsland and Glenelg Hopkins. East Gippsland, Corangamite and North Central were the least successful. Corangamite was the most successful region in attracting visitors to study Landcare work, followed by Goulburn Broken and Wimmera. East Gippsland, Glenelg Hopkins and the Mallee were the least successful. These differences can only partly be explained in terms of proximity to large regional centres. Given the shortage of labour in some rural areas and the potential for wider community engagement through these processes, research to explore the reasons for differences in regional capacity to attract visitors seems warranted.

4.8 Engagement with Indigenous groups

For the first time, the 2004 survey sought information about Landcare group engagement with Indigenous groups. Respondents were asked if their group had been assisted by a range of other organisations, including Indigenous groups. Only 3% of the respondents (11 of 328) indicated they had been assisted by Indigenous groups [Appendix: Table 3].

In another question, respondents were asked if 'Our group has involved Indigenous groups in planning or other group work'. No time-frame was specified. Twelve per cent (n=319) of respondent groups said they agreed/ strongly agreed with this statement [Table 7]. The North East (21%), Goulburn Broken and West Gippsland (16%), Corangamite and North Central (14%) were above the mean and may provide examples of how to more effectively engage Indigenous groups [Appendix: Table 4].

4.9 Engagement with non-farmers

Again for the first time, the 2004 survey sought information about Landcare group engagement with non-farmers. The first question asked respondents to indicate if their group was rural, urban fringe, or urban based. Of the 273 respondents to this question, 21% were urban fringe or urban groups.

The second question asked respondents to estimate the number of 2004 adult members who would not see themselves as farmers by occupation. Clearly, this is a very subjective assessment. Respondents (n=319) estimated that 40% of 2004 members were non-farmers, with higher proportions in regions such as Corangamite, Port Phillip, North East and North Central (all >40%) and lower proportions in East Gippsland, West Gippsland, Glenelg Hopkins, and Goulburn Broken (38%-29%), and the Wimmera and Mallee (22%-7%). There is some comparable data available from the large regional surveys of rural landholders undertaken by the authors. For example, Curtis and Byron (2002) found that 80% of rural landholders in the Wimmera said they were a farmer by occupation. Respondents to the 2004 Landcare survey estimated that 78% of Wimmera Landcare members were farmers. In their Glenelg Hopkins study, Byron et al (2004) found that 64% of rural landholders surveyed said they were a farmer by occupation. Respondents to the 2004 Landcare survey estimated that 77% of Glenelg Hopkins Landcare members were farmers. These data suggest that the Victorian Landcare groups are engaging a representative group of rural landholders, including non-farmers.

Opinions will vary about the extent that Landcare should be engaging landholders in urban fringe or urban areas and non-farmers. What we can say is that non-farmers are already managing substantial parts of most Victorian catchments (39% of land in the Glenelg Hopkins for example, Byron et al (2004)). There are other reasons for engaging non-rural residents and non-farmers in the work of Landcare, including the need to shape the opinions

Table 7**Views on how groups operate**

Victoria Landcare Survey 2004 N=343

Topics	n	Disagree	Neutral	Agree
At times our people have been in leadership positions too long	322	40%	23%	37%
Some issues I think important are not addressed in our group	322	47%	25%	28%
The Government expects Landcare members to do too much of the work fixing land & water degradation	323	14%	23%	63%
Leaders in group are overworked	322	20%	37%	43%
A few people dominate decision making in the group	323	47%	26%	27%
There are only a few highly active members in group	327	19%	10%	71%
We don't usually follow up with members after continued absence from activities	322	27%	16%	57%
Separating the NLP from NHT increased red-tape for group	303	10%	46%	44%
The CMA is placing less emphasis on working with groups to implement on-ground work & this has reduced member enthusiasm	320	30%	38%	32%
Our group has had problems completing some projects	321	40%	18%	42%
It has been difficult to get local government involved in our work	321	39%	29%	32%
Group has a policy to change leaders frequently (every 1 - 2 years)	315	47%	29%	23%
Our group has a clear idea of where it is headed	322	20%	28%	53%
We usually organise for someone to visit new members & explain how the group operates	311	59%	19%	22%
There is a strong social connection, bond in the group	323	11%	23%	67%
Resources are shared fairly among members	319	8%	17%	75%
Group has more influence on what we do as a group than the CMA or governments	320	16%	21%	63%
I feel appreciated & receive acknowledgment for the work I do	321	9%	26%	65%
People are willing to compromise to reach decisions acceptable to most members	321	6%	17%	78%
There is usually someone willing to take on leadership roles in group	323	40%	14%	46%
The scale of environmental problems in our region is beyond the capacity of Landcare groups alone to address	325	17%	11%	71%
Our group publicly acknowledges the contribution of members to projects	320	14%	23%	63%
We provide new members with background info about group	315	23%	22%	55%
In recent years we have taken time to look back over our achievements	315	19%	24%	57%
Our group has identified a clear way of evaluating success of projects undertaken	316	29%	37%	34%
Our group has involved Indigenous groups in planning or other group work	304	66%	22%	12%
Establishing the CMA increased the support our group receives from government	312	20%	27%	54%

of these voters, or access their labour or financial resources. Evidence from this survey suggests Landcare is successfully engaging these groups in that one in five Landcare groups in Victoria is urban fringe or urban based and non-farmers represent 40% of the total Victorian group membership.

4.10 Landcare networks

4.10.1 Introduction

Curtis et. al. (1999) suggested that networks are an important additional tier of local organisation and can enhance the impact of Landcare groups. Networks can enhance inter-group communication and coordination, improve understanding of regional issues, attract funding and other resources and increase the ability of groups to shape decisions. It is also possible that the energy of key Landcare members may be diverted from individual group activities to the establishment and management of a network (Curtis et al. 1999).

Network formation has been encouraged by lead agencies in Victoria and is in part driven by government and agency demands for efficiency, accountability and effective regional planning. With a large and increasing number of groups it is easy to understand why government and agencies would want to deal with a smaller number of coordinating groups. Government and agency partners may also use networks as a way to control group processes.

4.10.2 Group membership of networks

The 1998 survey established that 71% of the respondents considered they were part of a network. In 2004, 70% of the respondents (n=328) indicated they were part of a network.

4.10.3 Value of networks to groups

Respondents were asked to indicate the extent they agreed/disagreed (using five response categories ranging from 'strongly agree' to 'strongly disagree') with each of ten statements covering topics identified from previous research (Curtis et al 1999). Three statements ('Really only another layer of bureaucracy', 'Diverted your effort from on-ground work', and 'Meant there is less focus on groups and less group activity') were placed in the negative in an attempt to avoid respondents adopting a set response pattern.

The 2004 survey data confirm the perceived value of Landcare networks in:

- improving communication (89% positive for 'Provided access to information' and 88% positive for 'Provided a forum for discussion');
- helping people develop a regional perspective (75% positive for 'Helped understand regional issues');
- assisting groups to access resources (74% positive for 'Helped access government funds');
- improving inter-group coordination (72% positive for 'Helped local groups work together on common issues');
- a majority believed network participation had not 'Diverted their efforts from on-ground work' (78% positive response); and
- a majority believed network membership did not mean less focus on groups and less group activity' (71% positive).

On the other hand, only small majorities of respondents said their network was not 'Only another layer of bureaucracy' (63%); had helped 'Increase our ability to shape decision making' (59%); or 'Resulted in more professional management of projects' [Table 8].

Of the eight topics covered in both the 1998 and 2004 surveys, the only substantial changes were for less positive responses to the statements that the network was really 'Only another layer of bureaucracy' (from 75% in 1998 to 63% in 2004); and 'Helped local groups work together on common issues' (from 84% in 1998 to 72% in 2004).

Table 8

Views on the value of Landcare networks or associations to the group

Landcare Victoria Survey 2004 N=343

Topics	n	Disagree	Neutral	Agree
Provided access to information	227	5%	6%	89%
Really is only another layer of bureaucracy	226	19%	18%	63%
Resulted in more professional management of projects	226	20%	21%	58%
Helped us understand regional issues	227	11%	13%	75%
Diverted our effort from on-ground work	224	12%	10%	78%
Helped us access government funds	228	13%	13%	74%
Has meant there is less focus on groups & less group activity	228	9%	20%	71%
Provided a forum to discuss Landcare issues	228	5%	7%	88%
Helped local groups work together on common issues	228	9%	19%	72%
Increased our ability to shape regional decision making	228	15%	26%	59%

4.11 Approaches to engagement

A survey question sought information on group involvement in promotional activities other than field days and demonstrations. Respondents were asked to select from a list of 13 topics, including school education activities, public displays and promotions, interviews with radio and television, hosting visits or tours, a regular newsletter, Junior Landcare/ Saltwatch, and letters and articles in newspapers. Respondents were able to nominate other areas of activity. For this question, it was assumed that no response meant there had been no activity on that topic.

Of the 269 respondents to this question, the most frequently listed activities were a regular newsletter (51%), letters and articles in newspapers (47%), participation in local CMA forum (46%), school education activities (38%), public displays and promotions (35%) and hosting visits or tours (31%).

Table 9**Perceptions of longer-term group outcomes**

Landcare Victoria Survey 2004 N=343

Topic	n	No/ little success	Some success	High success	[Does not apply % N]	Mean score
Attracted widespread participation from landholders in area	320	26%	43%	31%	[3%]	3.1
Improved communication between landholders in area	316	23%	46%	30%	[4%]	3.1
Built trust among landholders	309	26%	44%	30%	[6%]	3.1
Enhanced sense of community (social connectedness)	316	22%	44%	34%	[4%]	3.2
Increased awareness of land/water degradation	317	22%	42%	36%	[3%]	3.2
Increased understanding of what sustainable farming involves	276	42%	38%	20%	[15%]	2.7
Increased understanding of what biodiversity (native plants & animals) conservation involves	316	24%	49%	27%	[4%]	3.1
Increased appreciation of how actions on a farm can lead to catchment impacts	292	36%	38%	26%	[10%]	2.9
Contributed to greater co-operation among landholders to address NRM issues	279	38%	38%	24%	[10%]	2.8
Contributed to changed land management practices	301	39%	41%	20%	[8%]	2.8
Brought more resources into our area to address land/water degradation	298	29%	34%	38%	[8%]	3.1
Group members have completed important on-ground work	325	8%	31%	62%	[1%]	3.8
Improved the condition of land/water resources in the area	317	23%	36%	41%	[4%]	3.2
There is higher agricultural productivity in the area than there would have been otherwise	238	45%	36%	19%	[25%]	2.6

Seventy-eight per cent of the 343 respondents were involved in one or more of the nominated activities (78% in 1998 and 76% in 1995).

4.12 Participant perceptions of engagement

For the first time, the 2004 survey included questions asking respondents to rate their group's achievement across a range of possible Landcare group outcomes over the longer-term, including engagement, contributing to changed practices and improved resource conditions [Table 9]. The five response options 'no success', 'little success', 'some success', 'much success', and 'a high level of success' have been collapsed into three for presentation of data. These outcomes were identified using the Landcare program logic explained earlier. Many of the items included in the survey had been employed in our previous research (Curtis and De Lacy 1996a; Curtis et al. 2000; Byron and Curtis 2001; 2002a).

It is interesting to note that respondents were more confident that some outcomes applied to their group than some others. For example, almost all respondents (99%) were prepared to rate the success of their group for the topic 'Group members have completed important on-ground work in our area'. On the other hand, 25% didn't think that the outcome 'There is higher agricultural productivity in our area than there would have been otherwise' applied to their group. To some extent it seems that the respondents were challenging the validity of what might be considered higher order, or longer-term outcomes where the potential for group impact is more problematic [Table 9].

A number of the topics in Table 9 explore Landcare group success in engaging landholders and the wider community, including those relating to aspects of participation, communication, trust, sense of community, and cooperation. The 2004 survey data provide strong affirmation of the value of Landcare across the range of possible outcomes, and especially in terms of engagement through:

- building a sense of community (78% positive);
- improving communication between landholders (76%);
- attracting widespread participation (74%);
- building trust amongst landholders (74%);
- contributing to greater cooperation amongst landholders (72%).

As might be expected, respondents generally gave a higher rating for success across the engagement outcomes than for the more problematic outcomes such as improving the condition of land and water resources or achieving higher agricultural productivity.

The regional picture can be presented by noting the frequency with which each region scored on or above the mean for each topic. For the five topics most relevant to engagement, this analysis suggests that Goulburn Broken performed best (5 from 5), followed by Glenelg Hopkins, Mallee, North East, Port Phillip and Wimmera (all 4 from 5), and then East Gippsland and West Gippsland (3 from 5), then Corangamite and North Central (1 from 5) [Appendix: Table 5].

5. Partnerships between community, industry and government

5.1 Assistance from outside groups

Respondents were asked to indicate if their group was assisted by any of 14 different types of outside groups, including government and non-government organisations [Table 10]. The CMA are larger, more important organisations than they were in 1998 when the last survey was completed and were identified by 73% (n=328) of respondents (up from 35% in 1998) as providing assistance to their group in 2004. This level of engagement is higher than for all levels of government, with 69% of groups reporting assistance from at least one level of government in 2004, down from 88% in 1998 and 97% in 1995.

The earlier trend of more groups registering support from other Landcare groups (22% in 1993 to 32% in 1995 and 39% in 1998) was not sustained. In 2004, 33% of respondents said their group had received assistance from other Landcare groups [Table 10].

Recent efforts by the Victorian Farmers Federation (VFF) to support Landcare appear to explain the substantial increase in the proportion of groups reporting assistance from the VFF (up from 19% in 1995 and 1998 to 28%). The trend for declining engagement with industry/ business continued (down from 39% of groups reporting assistance from this source in 1993, 28% in 1995, 19% in 1998 and 11% in 2004) [Table 10].

Table 10

Assistance from outside the group

Victoria Landcare Survey 2004 N=343 n=328

Group assisting	n	% Yes
Catchment Management Authority	240	73%
Local government	158	48%
State government	131	40%
Federal government	126	38%
Other Landcare groups	109	33%
Victorian Farmers Federation	91	28%
Conservation groups	64	20%
Landcare Australia Ltd	58	18%
Education groups	46	14%
Local service clubs	42	13%
National Landcare Facilitator Project	42	13%
Industry groups such as Topcrop, Target 10	35	11%
Recreation groups	15	5%
Indigenous groups	11	3%
Scouts	3	1%
Other	11	3%

5.2 Government as partner

5.2.1 Introduction

The agency/group relationship has been an important ingredient in much of the success of Landcare (Curtis 1998). At the same time it must be recognised that Landcare represented a fundamental change in the approach to NRM in that the skills required of extension staff attempting to facilitate the processes of community development through group action are vastly different to those required of soil conservation or agriculture advisers. The emergence of large numbers of Landcare groups requiring government support in an era of reduced agency budgets also creates tensions. Groups at different stages of development can be expected to have different needs and seek a different type of relationship with government agencies. The move to regional delivery of NRM through CMA has further complicated the relationship between Landcare groups and government.

The 2004 survey included a series of questions seeking information about the nature and adequacy of support groups receive from government and their regional CMA, including:

- the dollar value of all local government and state and federal government assistance;
- The frequency and nature of contact between each group and agency, CMA and local government contact staff;
- perceptions of the role of agency or CMA contact;
- assessments of the adequacy of support from government across a range of topics;
- the type of support required from government over the next three years.

5.2.2 Dollar value of state, federal and local govt assistance

In 2004, 81% (n=318) of all cash and materials support received by the respondent Landcare groups was provided by the Australian and State governments, 10% by local government and 8% by the private sector. Within the government sector, the Australian and State governments provided 89% of the total support of \$5,479,261, overshadowing assistance from local government. In turn, local government support with cash and materials (\$614,851) exceeded that provided by the private sector (business, philanthropic and service groups) (\$497,747).

While a smaller proportion of the respondent groups had cash or materials support from government in 2004 (78%, down from 84% in 1995 and 1998), those groups receiving support were more likely to access larger amounts of cash and materials. For example, the median value of cash and materials received per group increased significantly from \$4,000 in 1995, to \$6,000 in 1998 and \$8,000 in 2004. In 2004 only 17% of groups received less than \$2,000, compared to 30% in 1998 and 33% in 1995 [Table 11]. At the same time, 24% of groups reported that the value of cash and materials received from government in 2004 was in excess of \$25,000, a significant increase on the 16% in 1998 and 6% in 1995 [Table 11]. This small set of groups (24%) was able to secure a majority of total funds (89%), and a significantly larger share than in the past (62% in 1998 and 37% in 1995). These data are consistent with the Australian Government policy of investing in fewer, larger projects that are more likely to lead to landscape-scale change.

Table 11

Dollar value of state, federal and local government assistance

Victoria Landcare Survey 2004 N=343

Year surveyed	n	Total % groups with assistance	Less than \$2000	More than \$25,000
2004	227	78%	17%	24%
1998	202	84%	30%	16%
1995	153	84%	33%	6%

The regional data represent a large data set and it is probably most useful to explore patterns in the value of support from the Australian and state governments, and then to identify regions that appear more successful in attracting funding from local government and the private sector. The value of cash and materials received from federal and state governments was above the state median of \$8,000 in Corangamite, North East, Wimmera, West Gippsland and Mallee [Appendix: Table 7]. There have been some changes since 1998, in that Corangamite and Mallee were below the state median in 1998. North Central had the lowest median value for cash and materials received by groups in both 2004 and 1998.

The Mallee appears as the standout success in attracting cash and materials from local government, with a median of \$7,500 per group compared to the overall median of \$1,235. Corangamite was the most successful region in attracting cash and materials from the private sector (regional median of \$24,000 compared to state median of \$2,000) [Appendix: Table 7].

5.3 Frequency and nature of contact between the group and agency, CMA and local government contact staff

Respondents were asked to indicate:

1. whether their group had a designated contact officer from the lead state agency (Department of Primary Industries or DPI), the CMA and local government;
2. extent of contact with each of these contact officers in the past year;
3. their views about the role of the DPI or CMA staff working with their group.

For the 2004 survey there were changes to some questions used in previous surveys. In the main, these changes involved attempts to distinguish between the work of contact staff employed by the state agencies and the CMA and local government. In the past, questions had simply referred to contact with all government officers and to the lead agency. However the 1995, 1998 and 2004 surveys used many of the same response categories and it is possible to compare most findings from the different surveys.

Eighty-eight per cent of all respondents (n=328) said that in 2004 their group had a designated contact officer with either the DPI, the CMA or local government. This level of contact is higher than that reported in 1998 (77%), although the 1998 survey didn't include local government in this question; and consistent with the level of contact reported in 1995 (89%). At a regional level, the proportion of groups reporting a designated contact officer with at least one source varied from 66% in West Gippsland to 100% in the Mallee.

The importance of CMA in regional NRM is highlighted by the finding from the 2004 survey that respondents were more likely to have a designated contact officer with the CMA (73%, n=326) than with DPI (51%, n=316).

Efforts to engage local government in regional NRM may be working, with respondents more likely to have a designated contact officer with local government (53%, n=328), than with DPI. There were also regional variations in engagement with local government contact levels ranging from 83% in the North Central and Port Phillip regions to 18% in East Gippsland [Appendix: Table 8].

Two additional questions sought information about Landcare group engagement with local government:

1. The extent groups had discussed 'Involving local government in group work' during 2004;
2. Views about whether 'It has been difficult to get local government involved in our work'.

Twenty-four per cent (n=289) of the respondents said their group had in-depth discussions about 'Involving local government in group work' during 2004 where the topic was the key item for at least one meeting or was discussed for some time over a number of meetings. Of the 12 topics listed, this topic was the sixth highest ranked, behind managing weeds, developing a local action plan, water quality, recruiting new members and managing rabbits.

About a third (32%) of all respondents (n=321) agreed that 'It has been difficult involving local government in our work'. [Table 7] At the same time, 39% disagreed and 29% were 'neutral' on this topic. Despite evidence of considerable progress, a substantial minority of groups continue to experience difficulties engaging local government. Port Phillip and the North Central were the regions with the highest levels of confidence in the ability of Landcare groups to engage local government. East Gippsland had the lowest level of confidence for this topic [Appendix: Table 4]. Interestingly, these findings parallel the findings for the regions with the highest and lowest proportion of groups reporting a designated local government contact officer.

For the questions seeking information about the frequency of contact, the response options were 'weekly', 'every 2 weeks', 'every month', 'every 3 months' and 'rarely/none'. The analysis of past survey data focussed on the idea of 'regular' contact, defined as at least 'every 3 months'. In 2004, 68% (n=320) said their group had regular contact with at least one officer from DPI or the CMA. By comparison, 85% of the 1998 survey respondents and 92% of 1995 said their group had regular contact with a government officer. At the same time, there was a significant increase in the proportion of groups reporting 'rare/no' contact with DPI or CMA staff, up from 8% in 1995 to 15% in 1998 and 32% (n=320) in 2004. These data confirm there is a continuing trend to reduced levels of regular contact between government staff and Landcare groups.

5.4 Perceptions of the role of agency or catchment management contact staff

Previous surveys have provided strong affirmation of the role of contact officers in that between 83% to 88% of respondents in 1995 and 1998 said their contact officers 'Show respect for the skills and knowledge of members', 'Have good communication skills', and 'Have good technical knowledge'. As in the past, in the 2004 survey there were five response options ranging from 'strongly agree' to 'strongly disagree'.

The 2004 survey data suggests there has been an erosion of confidence, and perhaps trust, between groups and their government contact officers in that the proportion of respondents who 'agree/ strongly agree' has fallen by around 10% to between 73% and 75% [Table 12].

A fourth topic, 'DPI or CMA staff working with your group have little influence on group decisions', was also a replicate of a question employed in the 1998 and 1995 surveys. As in the past, slightly more respondents disagreed (45%) than agreed (41%) with this statement [Table 12].

Table 12

Perceptions of the role of DPI or CMA staff working with groups

Landcare Victoria Survey 2004 N=343

Topic	n	Agree	Not Sure	Disagree
Have little influence on group decisions	308	41%	14%	45%
Show respect for skills & knowledge of members	308	74%	17%	9%
Have good communication skills	306	73%	18%	10%
Have good technical knowledge	307	75%	20%	5%

As with other topics, there are regional trends in the data for these topics, suggesting that useful lessons might be learned by exploring the reasons for these regional differences. For example, Glenelg Hopkins and Corangamite contact staff were rated highly for their communications skills. There are also differences within regions across the different topics in the ratings provided by respondents. For example, Port Phillip contact staff were rated more highly for their technical knowledge than for their communication skills [Appendix: Table 9].

5.5 Adequacy of support from government

The 2004 survey included seven questions seeking information about the extent groups received sufficient support from government. The first six questions listed below were identical to those included in the 1998 survey and the first five of these had also been included in the 1995 survey. Respondents were asked to select from response options of 'excellent', 'adequate' and 'inadequate' to describe government support in the following areas:

1. Information and advice on land management.
2. Money or materials to manage land and water degradation.
3. Leadership and management training for group leaders.
4. Coordination of on-ground group activities, such as field days, tree planting and fencing.
5. Assistance with group administration, including newsletters, and project management.
6. Assistance with grant applications.
7. Strategic action planning.

Combining 'excellent' and 'adequate' responses provides an overall measure of satisfaction with support for each topic. Levels of satisfaction in 2004 were higher for 'Information and advice on land management' and 'Assistance with grant applications' and lower for 'Money or materials to manage land and water degradation' and 'Leadership and management training for group leaders' [Table 13].

Table 13

The extent groups received sufficient support from government

Landcare Victoria Survey 2004 N=343

Type of Support	n	Excellent	Adequate	Inadequate
Information & advice on land management	306	15%	65%	20%
Money or materials to manage land & water degradation	305	10%	43%	47%
Leadership & management training for group leaders	293	2%	50%	48%
Coordination onground group activities (field days, tree planting, fencing etc)	299	16%	55%	29%
Strategic action planning	298	13%	53%	34%
Assistance with grant applications	311	29%	49%	23%
Assistance with group administration (newsletters, project management)	301	19%	48%	33%

Levels of satisfaction with support from government in 2004 were generally improved on those reported in 1998 (up for 5 of 6 topics), reversing a trend to generally lower levels of satisfaction between 1995 and 1998. (down for 4 out of 5 topics). Satisfaction levels were higher for the provision of information and advice on land management (80%), assistance with grant applications (77%), and coordination of on-ground activities (61%); and lower for money or materials to manage land and water degradation (53%) and leadership and management training for group leaders (52%) [Table 14].

There are some marked regional differences in the levels of satisfaction with support provided by government, suggesting that regional delivery approaches can make a difference. For example, satisfaction with leadership training was highest in West Gippsland (64%), strategic planning in the Mallee (83%), and money or materials to manage degradation in Corangamite (67%). Some regions achieved consistently higher levels of satisfaction, including West Gippsland, the Mallee and East Gippsland [Appendix: Table 10].

Table 14**Historical data - the extent groups received sufficient support from government (% reporting adequate support)**

Landcare Victoria Survey 2004 N=343

Type of Support	n	2004	1998	1995
Information & advice on land management	306	80%	84%	85%
Money or materials to manage land & water degradation	305	53%	50%	59%
Leadership & management training for group leaders	293	52%	45%	53%
Coordination onground group activities (field days, tree planting, fencing etc)	299	71%	65%	78%
Strategic action planning	298	66%	na	na
Assistance with grant applications	311	77%	71%	na
Assistance with group administration (newsletters, project management)	301	67%	54%	62%

5.6 Type of support required from government over the next three years

As in 1998, survey respondents were asked to allocate government resources that will support Landcare in their area over the coming three years across four service areas: group coordination; technical advice; money or materials as part of cost sharing for on-ground work; and labour to perform on-ground work. Respondents were invited to nominate the proportion (%) of resources to each of these types of support.

In 2004, the 315 respondents were prepared to allocate 42% (44% in 1998) of all government resources as money or materials for on-ground work, 23% (23%) to a coordinator to support group activity, 22% (18% in 1998) for labour to perform on-ground work, and 13% (15%) for technical information and advice. Both the rank order and the level of support for expenditure across the different topics in 2004 is similar to that in 1998.

There are fewer regional differences in these data than for other topics. Some of the main differences are:

- Substantially higher than average demand for coordinators in East Gippsland and the Mallee (38% and 35% respectively);
- Higher demand for technical information and advice in Port Phillip (17%);
- Substantially lower demand for money or materials as part of cost sharing for on-ground work in the Mallee (19%) and East Gippsland (29%); and
- Substantially higher demand for labour to perform on-ground work in the Mallee (37%).

5.7 Catchment Management Authorities

CMA are now important NRM players and Victorian Landcare groups are more likely to have a designated contact officer with the CMA (73%, n=326) than with DPI (51%, n=316); and are more likely to identify the CMA as a source of assistance (73%) to their group than all levels of government (69%) in 2004. However, the development of CMA has also raised concerns amongst some Landcare members that there is less focus on supporting Landcare.

The 2004 survey sought to explore some of the issues surrounding Landcare/ CMA relationships, including respondents' views about:

1. The 'Definition of the relationship between Landcare and CMA' as a potential constraint affecting the ability of groups to achieve their priorities in 2005;
2. 'The CMA is placing less emphasis on working with groups to implement on-ground work and this has reduced member enthusiasm';
3. 'Establishing the CMA increased the support our group receives from government'.

Forty-five per cent (n=314) of respondents said 'The definition of the relationship between Landcare and the CMA' would be an important/very important constraint affecting the ability of their group to achieve its priorities in 2005. This is a substantial proportion of all respondents, but this topic was only rated eighth out of eleven for the issues identified in the survey.

Over half of all respondents (54%, n=312) agreed that 'Establishing the CMA increased the support our group receives from government'. This information provides strong affirmation of the emerging relationship between CMA/Landcare groups. Across the state, only 20% of respondents disagreed with the statement (a further 27% were neutral), and this positive pattern was evident across all regions [Table 7 and Appendix: Table 4].

Just under a third (32%, n=320) of all respondents agreed that 'The CMA is placing less emphasis on working with groups to implement on-ground work and this has reduced member enthusiasm', suggesting there is a substantial minority of groups where the CMA/Landcare group relationship is problematic. Across the regions, more positive views of the CMA/ Landcare group relationship on this topic were evident in the Mallee and Port Phillip [Table 7 and Appendix: Table 4].

5.8 Industry engagement

The trend for declining Landcare group engagement with industry/business continued in 2004 (down from 39% of groups reporting assistance from Industry groups in 1993, 28% in 1995, 19% in 1998 to 11% in 2004). The value of non-government assistance has increased over time from a median of \$200 in 1995 to \$1,225 in 1998 and \$2,000 in 2004. Nevertheless, the total value of this assistance is a small proportion of total resources received by groups (8% in 2004 compared to local government at 10% and the State and Australian Governments at 81%). Information from the 2004 survey suggests the relative importance of resources from the non government sector has remained static (7.5% in 1998) after falling dramatically from 15% in 1995.

6. Integrating NRM into business and property plans

6.1 Property and catchment planning and priority setting (action planning)

The National Landcare Program has always emphasised the twin objectives of enhanced biodiversity conservation on private land and more profitable agriculture. Property planning that considers land capability as part of developing a profitable farm enterprise, and more recently, succession planning, has been seen as an essential ingredient of efforts to move towards more sustainable agriculture. Property planning is also seen as an essential building block in the development of subcatchment and catchment plans that might be developed by Landcare groups and CMA respectively. There is some evidence that property planning is linked with higher adoption of recommended practices (Pannell et. al 2005) and that catchment planning is linked to higher levels of group activity (Curtis and Van Nouhuys 1999). There is also evidence that annual priority setting is linked to higher levels of group activity (Curtis 2000).

Thirty-one per cent of respondents (n=257) had members involved in group activities during 2004 that included the preparation or updating of property management plans. This level of group activity in property management planning is similar to 1998 (30%, but lower than the 50% in 1995). Groups in the Wimmera that were involved in property planning reported the highest mean proportion of members engaged in this activity (63%), well ahead of all other regions (mean 13%).

Forty-five per cent of respondents (n=324) said that their group 'Has/is developing a documented catchment or group area plan that links individual property management plans to protect important catchment assets or address key issues' (up slightly from 41% in 1995 and 40% in 1998). The Mallee (75%), North East (62%) and West Gippsland (55%) performed best on this topic [Appendix: Table 11].

During 2004, 53% (n=324) of respondents said their group 'Met to establish an annual action plan that sets out the group's priorities and ways to achieve them' down significantly from 69% in 1995 and 69% in 1998. The Mallee (92%), East Gippsland (73%) and West Gippsland (60%) performed best on this topic [Appendix: Table 11]. Amongst the overall cohort, 87% said their action plan was documented; 80% said their action plan was made available to most members; and 60% said their group or executive had met to review progress with their plan.

Additional information was gathered through a question asking if each group had discussed 'Group developing a local action plan' during 2004. This was the second highest rated topic of discussion of the 12 topics listed in the survey, with 38% (n=289) of respondents saying their group had an in-depth discussion of the topic. Only 26% of the respondents said their group had not discussed this topic during 2004.

6.2 Perceptions of group outcomes

Respondents were asked if group activity had 'Increased appreciation of how actions on a farm can lead to catchment impacts'. [Table 9] Twenty-six per cent (n=292) said that there had been much/ high level of success on this outcome, 38% some success, and 36% no/ little success (64% positive). With a mean score of 3.2 out of a possible 5, achievement on this outcome measure was rated in the middle of the 14 topics listed. Ratings on or above the mean were achieved in the North East, East Gippsland, Glenelg Hopkins, North Central and West Gippsland [Appendix: Tables 6a, 6b].

7. Facilitating regionally relevant management practices

7.1 Introduction

The NLP assumes that there is considerable work to develop, improve and implement management practices that will enhance the sustainability of agriculture. These efforts will need to involve partnerships between industry, government and landholders and for this investment to include regional-scale research, development and extension (RD&E). Landcare group activity can make an important contribution to this work in terms of:

1. mobilising participation from a wide cross section of landholders;
2. providing fora, including meetings and field days, where researchers, extension staff and landholders can build trust and engage in co-learning, including through the application of local or farmer knowledge;
3. employing local trials and demonstrations and monitoring activities to improve awareness of issues, understanding of processes and practices, confidence in recommended practices, and develop regionally relevant practices.

The 2004 survey asked for information about:

- group involvement in field days or farm walks, and demonstration or trial plots;
- the topics of group discussion;
- involvement in monitoring;
- perceptions of group outcomes, including:
 - 'Increased awareness of land and water degradation in our area';
 - 'Increased understanding of what sustainable farming involves in our area';
 - 'Increased understanding of what biodiversity conservation in our area involves';
 - 'Contributed to changed land management practices in our area'.

7.2 Field days/farm walks and demonstration/trial plots

Forty-six per cent (n=156) of the 338 respondents had conducted field days/farm walks in 2004 (a significant reduction compared to 66% in 1998 and 72% in 1995). The most frequently listed topics were tree and plant identification, weeds, no till cropping, direct seeding of remnant vegetation.

Twenty-five per cent (n=83) of the 338 respondents had demonstration or trial plots in 2004 (a significant decline from 55% in 1995 to 30% in 1998). The most frequently listed topics were native vegetation management (34%), weed management (34%), direct seeding (23%), salinity management (8%), and wetland management (6%), indigenous and regional gardens (6%), and perennial pastures and native fodder (6%).

In summary, there is a clear trend for fewer Victorian groups to be engaged in field days/farm walks and demonstration trials. At the same time, in a question about constraints affecting the ability of groups to achieve priorities in 2005, 36% of respondents said that 'Knowledge about how to proceed with on-ground work' was an important/very important constraint.

7.3 Discussions likely to contribute to regionally relevant management practices

The section dealing with topics discussed by groups during 2004 provides information about the extent that groups are facilitating the development, improvement and implementation of regionally relevant management practices. Topics covered in the survey included managing weeds in the local area, managing native grasses on farms, conservation cropping practices, farm forestry, managing rabbits in the local area, water quality and the extent and impact of climate change [Table 15].

Table 15

Topics discussed by groups: regionally relevant management practices

Landcare Victoria Survey N=343

Topic	n	Not discussed	Briefly discussed	Discussed in-depth
Managing weeds in local area	323	4%	29%	67%
Group developing local action plan	296	26%	36%	38%
Managing native grasses on farms	276	63%	30%	7%
Conservation cropping practices eg minimum till & stubble retention	270	73%	16%	11%
Involving local government in group work	289	39%	38%	24%
Recruitment of new members	308	19%	52%	30%
Farm forestry	276	62%	31%	7%
Managing rabbits in local area	296	33%	40%	27%
Subdivision of rural land in region	282	67%	21%	12%
Group leadership training or succession	283	65%	27%	8%
Extent & impact of climate change	282	65%	26%	9%
Water quality	300	17%	51%	31%

Survey data confirms the important role of Landcare groups as fora for the discussion of issues likely to lead to regionally relevant management practices that address critical NRM issues. For example, most groups (67%, n=323) had discussed the management of weeds in the local area 'in-depth', that is, this topic was the key item for at least one meeting or was discussed for sometime over a number of meetings. Water quality was also a commonly discussed item, with 31% of groups indicating they had discussed this topic 'in-depth' and a further 51% 'briefly'. Managing rabbits in the local area was also a common item of discussion. The other topics listed in the survey were not discussed as extensively, but with the exception of conservation cropping, the topics listed in Table 15 were discussed by between 30% and 40% of respondent groups during 2004.

7.4 Involvement in monitoring and evaluation

Fifty-three percent (n=326) of the respondent groups were involved in activities to monitor changes in the physical environment in their area. This level of monitoring was similar to that in previous surveys (58% in 1998, 55% in 1995).

Monitoring activities covered a range of topics, with the most commonly listed being river/stream water quality (52%), survival of planted trees/ shrubs (50%), remnant vegetation health (42%), groundwater depth/ quality (25%), improvement in riparian health after fencing to manage stock access (21%), soil condition (16%) and weeds (15%). The big trend is for increased proportions of groups to be monitoring almost all of the major topics. For example, with river stream water quality, the comparisons are 21% in 1998 and 37% in 1995; for remnant vegetation the comparisons are 5% in 1998 and 13% in 1995.

Two questions explored group involvement in evaluation:

1. 'Our group has identified a clear way of evaluating the success of projects we undertake';
2. 'In recent years we have taken time to look back over our achievements'.

Most respondents (57%) agreed/strongly agreed that their group does take time to review success, with 24% neutral and only 19% who disagreed/strongly disagreed. Given that many agencies struggle with evaluation, it is probably unrealistic to expect groups to have a 'Clear way of evaluating the success of projects' and respondents were less likely to agree/strongly agree with this statement (34%), 37% neutral and 29% disagreed/strongly disagreed [Table 7].

7.5 Perceptions of outcomes

The 2004 survey included questions asking respondents to rate their group's achievement over the longer term across a range of possible Landcare group outcomes. The outcomes listed included topics such as awareness raising, improved understanding of sustainable farming and biodiversity conservation. Activity that enhanced outcomes across these topics could be expected to lead to the development, improvement or implementation of regionally relevant practices [Table 9]. The five response options have been collapsed into three categories to simplify presentation of data [Appendix: Table 6a].

Most respondents thought their group had at least some success across each of the outcome topics that could be expected to have a direct bearing on the development, improvement or implementation of regionally relevant practices; the highest rating was for increased awareness of land and water degradation (78%), ahead of increased understanding of biodiversity conservation (76%), and increased understanding of sustainable farming (58%). The higher rating for biodiversity conservation compared to sustainable farming may be a product of higher Landcare activity focussed on this topic as a result of NHT investments that have largely focussed on biodiversity conservation; or that most landholders had higher levels of understanding for sustainable agriculture compared to biodiversity conservation prior to their participation in Landcare. The need for ongoing investment in capacity building was highlighted by information that 36% of respondents thought that 'Knowledge about how to proceed with on-ground work' would be an important/very important constraint affecting the ability of their group to achieve its priorities in 2005.

It is difficult to imagine that changes in land management practices can occur without activity to increase awareness, understanding and confidence in recommended practices. Sixty-one per cent of respondents said that their Landcare group had at least some success in contributing to changed land management practices in their area [Table 9].

The Appendix: Table 6a provides a summary of regional data for respondent perceptions of their outcomes.

8. On-ground work that leads to learning and action

8.1 Introduction

A majority of the funds allocated through the NLP are provided to groups for on-ground work, with the assumption that this work will contribute to the accomplishment of regional priorities, and lead to learning and further action at the local and landholder levels. The 2004 survey collected information about on-ground work for a limited number of topics. These practices were selected because they are expected to enhance biodiversity conservation and sustainable farming; and groups are known to be engaged in activities to adapt and implement them. This information was expected to enable comparisons with previous survey data to identify trends over time and to contribute to the index of group activity in 2004. The survey therefore sought information about fencing erected, trees/shrubs planted or direct seeded, and involvement in activities to address soil erosion, water quality, salinity, rabbits, foxes and weeds.

Survey respondents were also asked for their perceptions of group outcomes over the longer-term. Topics included in the survey go beyond the immediate on-ground work of groups to address the longer-term impact of that on-ground work on land and water condition and the sustainability of agriculture. However, this is probably the most appropriate section to discuss these topics and it is probably more useful to discuss them together. The outcomes topics to be discussed are:

1. 'Brought more resources into our area to address land and water degradation';
2. 'Group members have completed important on-ground work in our area';
3. 'Improved the condition of land and water resources in our area';
4. 'There is higher agricultural productivity in our area than there would have been otherwise'.

Other survey questions relevant to this topic included those addressing the future need for funding across different service areas and constraints to groups accomplishing their priorities.

8.2 Fencing erected to improve land and water management

Fencing is an important and expensive part of on-ground work such as protecting rivers/creeks, wetlands and plantings of trees/shrubs; managing stock and pest animal access to remnant vegetation; establishing demonstration sites; implementing property plans; and establishing nutrient filters on riparian areas.

Fifty per cent of respondents (n=309) said that on-ground work their group performed, coordinated or funded in 2004 had included fencing, continuing a downward trend from 80% in 1995 and 59% in 1998. At the same time, there was a significantly higher mean length of fencing (8.6 km in 2004, 5.1 km in 1998 and 5.5 km in 1995).

Extrapolating from the surveyed groups provides an estimate of 3,100 km of fencing erected by all Landcare groups in Victoria in 2004. If a material plus labour construction cost of \$8,000 per km is assumed, Landcare groups in Victoria erected fencing valued at \$25.1 million in 2004.

8.3 Vegetation management

Tree/ shrub plantings can be for aesthetic or commercial purposes or represent attempts to reverse long-term land degradation issues such as tree decline, rising ground water table, water-logging and declining biodiversity. For comparisons with past surveys, we have converted hectares planted to numbers of trees/ shrubs on the basis of 250 trees/shrubs per hectare.

Sixty-six per cent of respondents said their group planted trees/shrubs as part of group work in 2004, continuing a downward trend from 97% in 1995 and 74% in 1998. However, the mean area planted per group was 16.4 ha (4,100 trees/shrubs) which is similar to the mean of 3,419 in 1998. The total area planted to trees and shrubs for the respondent groups was 3,387 ha (estimated 7,900 ha for the state).

Twenty-two per cent (n=298) of the respondents said their group was involved in direct seeding of trees/shrubs in 2004, down from 67% in 1995. The mean area directed was 6 ha (or 1,500 trees/shrubs) which was an increase on 357 trees/shrubs in 1998. The total area established through direct seeding was 408 ha for the sample and an estimated 950 ha for all Victorian groups in 2004.

The combined area of trees/shrubs planted and trees/shrubs direct seeded was 3,795 ha for the sample groups, and estimated 8,850 ha or 2.2 million trees/shrubs for all Victorian groups in 2004.

8.4 Action to control soil erosion, salinity, rabbits, weeds and foxes and to improve water quality/river health

Eighty-seven per cent (n=331) of groups had taken action on at least one of these topics (compared to 85% in 1998 and 94% in 1995). Groups were most likely to be involved in weed control (75% in 2004, and 79% in 1998). The level of involvement in rabbit control (30%) was down from 1998 (56%) and may reflect the success of previous investments by the Victorian government in the 'rabbit buster' program and the impact of the release of the calici virus. Involvement in soil erosion control (31%) was similar to 1998 (36%), but there had been a significant decline in salinity control activity (22% in 2004 compared to 36% in 1998). Information about group involvement in water quality/ river health (41%) and fox control (31%) activities had not been collected in previous surveys.

8.5 Perceptions of outcomes

Of the four items included in this section, the highest rating was for the topic specifically addressing on-ground work: 93% of respondents said their group had at least some success in accomplishing important on-ground work in their area over the longer-term [Table 9]. Sixty-two per cent of respondents said their group had 'much success' or a 'high level of success' on this topic. The mean across all respondents for this topic was 3.8 (out of a possible 5), well ahead of any other topic [Table 9]. Notwithstanding the overall high level of achievement on this topic, there were regional differences with higher ratings in the Goulburn Broken, North Central, North East and West Gippsland (all with means of 3.9), the Mallee (3.8); and lower ratings for Port Phillip and Glenelg Hopkins (3.7), Wimmera (3.6) and East Gippsland (3.5).

Most respondents said that Landcare had contributed to 'Higher agricultural productivity in their area than there would have been otherwise': 55% reported at least some success, and this topic had an overall mean of 3.5 which was the second highest of all the outcome topics [Table 9]. Higher ratings were achieved in Glenelg Hopkins (61% at least some success), Corangamite (53%), and Port Phillip (50%) [Appendix: Table 6b].

Seventy-seven per cent of respondents said that Landcare had at least some success in 'Improved the condition of land and water resources in our area' over the longer-term. Higher ratings were achieved in Corangamite (95% at least some success), North East (93%), and Mallee (84%) [Appendix: Table 6b].

Almost all (71%) respondents said that Landcare had 'Brought more resources into our area to address land and water degradation' [Table 9]. At the same time, 65% (n=323) said that the 'Availability of funds' and 71% (n=322) said the 'Availability of labour for on-ground work' was an important/very important constraint affecting the ability of their group to achieve its priorities in 2005.

9. Providing strategic direction and support for the Landcare movement

9.1 Introduction

It is important to remember that Landcare is a means to an end and not an end in itself. Having said that, the underlying NRM context remains largely unchanged and governments will continue to rely heavily on the efforts and investments of private landholders to address complex, difficult NRM issues. As this report demonstrates, Landcare groups continue to undertake important on-ground work that is addressing regional and national NRM priorities. As we have also seen, Landcare groups facilitate learning and action by landholders and are a critical plank in the national NRM structure in that they provide fora where:

- There is sufficient trust for stakeholders to explore difficult issues, including those where there is a discontinuity between the source and impact of degradation;
- Learning with peers is likely to increase the awareness, knowledge and skills of land managers, including their confidence in more sustainable farming practices;
- Co-learning occurs between land managers, program managers and researchers and contributes to greater understanding of the nature of sustainability and the development of regionally relevant practices.

This report also raises questions about a possible decline in the health of the volunteer Landcare movement in Victoria. For example, there are now fewer groups, these groups include a smaller proportion of the landholders in their local communities as members, they are less active in engaging their wider communities, and there appears to be unsustainably high rates of member attrition. Evidence of much higher levels of group engagement with local government is a positive development. Survey data also suggests that concerns about the emerging relationship between CMA and groups may be misplaced.

9.2 The index of group activity

As explained in the Research Approach section, the 2004 survey gathered information that enables the construction of an 'index of activity' that includes measures of on-ground work and capacity building. In this way, activity has been used as a surrogate for measuring effectiveness (refer to discussion in Research Approach section). It is also possible to provide regional level data, and to be consistent with the 1998 report, this has been provided as a comparison of mean and median scores on the 'index of activity'. As in 1998, a higher number on the index ranking reflects a higher level of group activity in 2004.

Index construction also allows the testing for relationships between group ranking and independent variables likely to affect organisational effectiveness. Groups operating for less than one year were not included in ranking calculations. Where information was missing for variables used in index calculations, a zero was allocated to that group on that variable. Independent variables likely to affect Landcare group outcomes were:

- Length of time the group has been operating (group age in years).
- Membership size.
- Mean period of tenure for leaders.
- Recruitment and attrition rates.
- Level of participation and change in past 12 months in participation of members in group activities.
- Per cent of women membership.

- Government and non-government funding received.
- Frequency of contact with contact officers.
- Establishing/ have a catchment plan or group area plan.
- Have/ are establishing annual priorities.
- Involved in monitoring.
- Part of a Landcare network.
- Presence of a group coordinator employed by the group.
- Perceptions of factors likely to affect group health or ability to achieve program outcomes, including leadership, setting priorities, reflection and evaluation, retention and recruitment, group decision making, member participation, scale of environmental issues faced and Landcare red-tape.

Many of these variables had been included in the 1998 and 1995 surveys, so it is possible to make comparisons over time.

The 2004 survey asked respondents to rate their group's success across a range of possible long-term group outcomes on 14 topics. [Table 9] These data have been explored in previous sections of the report addressing engagement, contribution to regionally relevant NRM and to on-ground work. In this section we present findings from further analysis that explored relationships between respondent perceptions of long-term group outcomes and group performance on the 'index of activity' for 2004. The long-term outcomes were grouped as Engagement (2 items), Knowledge (4 items), Social capital (3 items), On-ground work (3 items), and Changed catchment condition (2 items). For the first time, we were therefore able to test for a relationship between activity and outcomes.

9.3 Perceptions of Landcare organisation and management

The literature examining the effectiveness of volunteer organisations similar to Landcare (Curtis et al 2000) identifies four broad groupings of factors affecting outcomes: 'group characteristics', 'resource availability', 'internal organisation' and 'leadership/decision making'. Those factors most frequently identified as important were: clear statement of goals, objectives and plans; availability of adequate resources; balancing of power of key stakeholders; willingness of participants to negotiate and compromise; and effective leadership. The 2004 survey sought respondent opinions on a number of these topics [Table 7].

Information in Table 7 suggests that most groups have established a supportive culture but that many groups have not adopted relatively simple and effective organisational or management approaches. For example, 23% of respondents said their group did not provide background information to new members (an additional 22% were unsure); 20% said their group did not have a clear idea of where it was headed (28% unsure); and 29% said their group did not have a clear way of evaluating success (37% were unsure).

Most respondents said there were only a few highly active members in their group (71%); that the scale of environmental problems in our region is beyond the capacity of Landcare groups alone to fix; and that government expects Landcare members to do too much of the work of fixing land and water degradation (63%). Although these topics were not linked to group performance on the index of activity, they raise concerns about managing the level of expectations placed on volunteers working in Landcare group [Table 7].

9.4 Characteristics of active and less active groups

Using group scores we have prepared profiles of three 'typical' groups.

Group A – low activity level (rank score 58/343)

This group was established as a rural ragwort control and Landcare group 16 years ago. It has a total of eight members (one woman). The President has been in that position for four years while both the Secretary and Treasurer have acted in their positions for 15 years. The group does not have a catchment management plan. The group did not perform any on-ground work, establish trial plots, monitor changes in 2004, or hold field days. The group received no external funding. The group was part of a Landcare network, and has a designated contact officer in the DPI who contacts them about every 3 months.

Group B – medium level of activity (rank score 180/343).

This is a rural Landcare group with 22 members (7 women) of whom 12 are not farmers by occupation. Fifteen of the 100 properties in the area are represented in the group. They recruited four new members in 2004. The executive positions have been occupied for two years or less. During 2004, six members were involved in preparing or updating property management plans and the group met to establish and document an annual action plan. Although they didn't hold field trials or demonstration days, 60 km of fencing was erected and they carried out on-ground work to improve water quality and river health, and combat salinity and weeds. The State/Federal governments contributed \$200 worth of assistance (cash or materials). The group is part of a Landcare network, and has a DPI contact officer who contacts them about every fortnight.

Group C – highly active (rank 299/343).

This is a rural/urban fringe group which has been operating for nine years and has fifteen members (eight women), of whom four are not farmers by occupation. Although ten new members were recruited, 12 of the 2003 members did not attend any activities in 2004. The President has been in office for 18 months, the Secretary has just started and the Treasurer has held the position for nine years. The group has not developed a catchment plan. In 2004 the group erected 11 km of fencing and planted 7 hectares with trees/shrubs. The group also organised activities to address soil erosion, water quality and river health; and salinity, rabbits, foxes and weeds. The group established three demonstration sites; and held two field days (with attendances of 20 and 30 people respectively). The group was also involved in monitoring activities for water quality, remnant vegetation health and survival of planted trees/shrubs. The group organised public displays and promotions, hosted visits/tours and was involved in Water Watch. The group received \$3,000 in cash and materials from the Federal Government and the CMA. The group is part of a Landcare network, and has a designated CMA contact officer who meets with them monthly. The group employs a part-time group co-ordinator who is also employed by other groups.

9.5 Factors affecting performance on the index of group activity

In previous reports we have examined the activity profiles of groups and identified those groups operating for more than a year that had little or no activity in the year covered by the survey. Our judgement is that for 2004 only 18 groups (5%) were making little/no contribution to the achievement of Landcare program objectives. The comparable figure for 1998 was 10%.

A number of survey topics were linked to significantly higher levels of group activity. The clear message is that internal group leadership, management approaches and prevailing culture do influence group outcomes. The precise causal relationships may be unclear, but

the weight of evidence is compelling: if we can improve the way groups operate we will lift their performance and contribution to the achievement of NLP objectives.

There were significant links between higher ranking on the index of activity and more positive assessments by respondent for the following topics:

- 'Having people willing to take on leadership roles'; and 'At times people have been in leadership positions too long';
- 'The group has a clear idea of where it is headed'; 'The group identifying a clear way of evaluating the success of projects'; and 'In recent years the group has taken the time to look back over its achievements';
- 'Providing new members with background information about the group'; 'We usually organise for someone to visit new members and explain how the group operates';
- 'The group publicly acknowledging the contribution of members to projects'; 'I feel appreciated and receive acknowledgement for the work I do';
- 'There is a strong social connection or bond in the group'; 'Resources are shared fairly equally'; and 'People are willing to compromise to reach decisions acceptable to most members' [Table 16].

The validity of relationships between respondent perceptions and the index of group activity was affirmed by findings of similar relationships for related measures that are more readily quantifiable. For example, more active groups in 2004 had significantly higher numbers of members, a higher proportion of women members, higher levels of participation from most members and were more successful in recruiting new members [Table 17]. Group involvement in developing action plan and catchment plans was also significantly linked to higher performance on the index of activity. Involvement in monitoring was also linked with significantly higher ranking on the index of group activity (the higher the ranking the more active the group) [Table 17].

Effective leadership is clearly a critical factor in group success (Curtis et al 2000). Where people occupy leadership positions for long periods groups may become excessively reliant upon a few people; potential members may be deterred by group identification with those individuals; the leadership aspirations of others may be stifled; and groups may adopt a narrow range of activities which inhibit participation or recruitment. Having a number of members with leadership experience should enhance group skills and strengthen commitment to group success. An alternate view is that if leaders turn over too quickly, say within one or two years, leaders may not have sufficient time to develop leadership skills and there could be less commitment from them for the achievement of group goals.

Previous surveys have found a reasonable level of turnover in most groups and that mean length of group leadership was not linked with activity levels. The 2004 survey provides the first hint that leadership turnover may be an issue affecting group outcomes. In 2004, shorter mean length of leadership was linked with significantly better ranking on the index of group activity [Table 17]. This information suggests that leadership turnover is part of the ingredients required for ongoing success. Indeed, the mean length of tenure for President/Chairperson has increased from 2.3 years in 1995 and 1998 to 4.5 years in 2004, and for Secretary from 2.6 years in 1995 and 1998 to 4.5 years in 2004.

Table 16

The impact of independent variables on group activity (measured using 'index of activity')

Landcare Victoria Survey 2004 N=339

Independent variables	n	Correlation	P value	Significant (p <0.05)
At times people have been in leadership positions too long	318	0.12	0.04	✓
Some important issues are not addressed in the group	318	0.06	0.28	×
The Government expects Landcare members to do too much fixing land & water degradation	319	-0.02	0.77	×
Leaders in our group are overworked	318	-0.05	0.36	×
A few people dominate decision making in the group	319	-0.01	0.85	×
There are only a few highly active members in group	323	0.08	0.13	×
We don't follow up with members after continued absence from group activities	318	0.03	0.63	×
Separating the NLP from NHT increased the red tape our group faces	299	-0.14	0.02	✓
The CMA places less emphasis on working with groups to implement on-ground work which has reduced member enthusiasm	316	0.07	0.19	×
Our group has problems completing some projects	317	0.13	0.02	✓
It has been difficult to get local government involved in our work	317	0.09	0.10	×
Group has a policy to change leaders frequently (every 2, 3 years)	311	0.08	0.14	×
Group has a clear idea where it is headed	318	0.34	0.00	✓
Usually organise someone to visit new members, explain how group operates	307	0.18	0.00	✓
There is a strong social connection or bond in the group	319	0.19	0.00	✓
Resources are shared fairly among members in group	315	0.13	0.02	✓
The group has more influence on actions of the group than the CMA or governments	316	0.06	0.26	×
I feel appreciated and receive acknowledgement for the work I do	318	0.14	0.01	✓
People are willing to compromise to reach decisions acceptable to most members	317	0.20	0.00	✓
There is usually someone willing to take on leadership roles in group	319	0.18	0.00	✓
The scale of environmental problems in the region is beyond the capacity of Landcare groups alone to address	321	0.00	0.99	×
Group publicly acknowledges contributions of members to projects	316	0.13	0.02	✓
We provide new members with background information about the group	311	0.16	0.01	✓
In recent years the group has taken time to look back over its achievements	314	0.17	0.00	✓
Group has identified a clear way of evaluating the success of projects undertaken	313	0.24	0.00	✓
Group has involved Indigenous groups in planning or other work	302	0.04	0.54	×
Establishing the CMA increased the support group receives from government	309	0.05	0.35	×

Table 17**Impact of independent variable on group activity (measured using 'index of activity')**

Landcare Victoria Survey 2004 N=339

Independent variables	n	Correlation	P value	Significant (p<0.05)
Group age (years)	273	0.04	0.498	x
Total members	313	0.42	0.00	✓
Women members (% Total members)	289	0.36	0.00	✓
New members (% Total members)	303	0.19	0.001	✓
Leader (mean years of tenure)	325	-0.14	0.01	✓
Participation rate	327	0.22	0.00	✓
Amount of government funding	311	0.51	0.00	✓
Amount of private funding	313	0.23	0.00	✓
Frequency of contact with government officer	317	0.06	0.325	x
		Chi-Sq	p.value	Significant (p<0.05)
Documented catchment plan	318	50.502	0.000	✓
Activities to monitor changes in the environment eg vegetation, salinity	331	43.502	0.000	✓
Met to establish annual group action plan	323	24.449	0.000	✓
Employed a co-ordinator (full/part time)	327	12.489	0.000	✓
Member of Landcare network	320	11.865	0.001	✓

The partnership with government continues to underpin Landcare group activity. As in the past, higher levels of government funding were linked with significantly better performance on the index of group activity [Table 17]. Levels of satisfaction with support from government were mostly improved on those reported in 1998 (up for 5 of 6 topics), reversing a trend towards generally lower levels of satisfaction between 1995 and 1998. Survey respondents said that 42% of future Landcare support should be allocated as money or materials for on-ground work, 23% to a coordinator to support group activity, 22% for labour to perform on-ground work and 13% for technical information and advice. Both the rank order and level of support for expenditure across the different topics are similar to 1998. While an increased proportion of groups report no/ rare contact with government contact staff, there was not a significant relationship between the extent of contact and ranking on the index of group activity [Table 17].

A small proportion of groups employed their own coordinators (29%, down from 38% in 1998, but the same as in 1995), and most of these support staff worked part-time (71%) and worked across a number of groups (95%). Survey data provide strong affirmation of the contribution of group coordinators to communication with other groups, the flow of information to the group and the group's capacity to develop and submit successful funding bids. As in previous surveys, groups employing a coordinator achieved a significantly higher ranking on the index of group activity [Table 17].

9.6 Regional patterns in group activity and perceptions of outcomes

Table 18 provides regional rankings based on the median ranking for all groups in each region for the index of group activity. The Mallee and North East were the number one and two regions in both 2004 and 1998. Glenelg Hopkins and the Wimmera were at the bottom of the rankings in 2004 after being ranked number three and four respectively in 1998. Remember that being ranked at the bottom of the list doesn't imply an unsatisfactory performance.

Table 18

Regional trends in the index of group activity (groups operating > 1 year)

Landcare Victoria Survey 2004 N=339

Region	n	2004 Rank*	1998 Rank
Mallee	12	1	2
North East	28	2	1
Port Phillip	40	3	7
Goulburn Broken	50	4	6
Corangamite	24	5	8
West Gippsland	45	6	<i>na</i>
East Gippsland	22	7	<i>na</i>
North Central	42	8	5
Wimmera	33	9	4
Glenelg Hopkins	43	10	3

* Based on the median rank for all groups in the region

The 2004 survey asked respondents to rate their group's success across a range of possible long-term group outcomes on 14 topics. Data for individual topics have been explored in previous sections of the report [Table 9 and Appendix: Tables 5, 6a and 6b].

The long-term outcomes were also grouped into outcome sets, labelled: Engagement (2 items), Knowledge (4 items), Social capital (3 items), On-ground work (3 items), and Changed catchment condition (2 items). Our analyses provided some statistical verification of the validity of these groupings. Regional trends in the respondent assessments of longer term outcomes are summarised [Appendix: Table 12].

As is indicated in Table 19, there is a significant positive relationship between group ranking on the index of activity and group scores for 13 of the 14 items assessing long-term group outcomes (the 14th 'There is higher agricultural productivity in our area than there would have been otherwise' was significantly correlated with the on-ground work index [Table 19]). There was also a significant positive relationship between group ranking on the index of activity and group scores for each of the long-term outcome sets [Table 19].

Table 19

Relationships between index of group activity for 2004 and longer-term group outcomes

Landcare Victoria Survey 2004 N=339

Topics: Long-term outcomes	n	Low activity (mean score)	Medium activity (mean score)	High activity (mean score)	Significant (low- high activity)
Attracted widespread participation from landholders in area	316	2.8	3.1	3.4	✓
Improved communication between landholders in area	312	2.8	3.0	3.4	✓
Built trust among landholders in area	305	2.9	2.9	3.4	✓
Enhanced sense of community (social connectedness) in area	312	3.0	3.0	3.4	✓
Increased awareness of land/water degradation	313	3.0	3.2	3.4	✓
Increased understanding of what sustainable farming involves	273	2.4	2.6	3.0	✓
Increased understanding of what biodiversity (native plants, animals) conservation involves	312	2.7	3.0	3.4	✓
Increased appreciation of how actions on a farm can lead to catchment impacts	289	2.6	2.8	3.2	✓
Contributed to greater co-operation among landholders to address NRM issues	275	2.4	2.9	3.0	✓
Contributed to changed land management practices	297	2.6	2.7	3.0	✓
Brought more resources into area to address land/water degradation	294	2.7	3.0	3.5	✓
Members completed important on-ground work	321	3.4	3.7	4.0	✓
Improved the condition land/water resources	313	3.0	3.2	3.5	✓
There is higher agricultural productivity in area than there would have been otherwise	235	2.4	2.6	2.7	✗
<i>Long-term outcomes grouped into outcome sets:</i>	<i>*these values are from the activity index rank = mean ranks for groups in that set</i>				
Set 1 Engagement	339	119 *	165 *	199 *	✓
Set 2 Knowledge	339	128 *	183 *	219 *	✓
Set 3 Social capital	339	131 *	179 *	211 *	✓
Set 4 On-ground work	339	124 *	181 *	220 *	✓
Set 5 Change in conditions	339	132 *	178 *	195 *	✓

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Appendix: Tables 1 – 12

Appendix

Table 1

Median, mean members per region

Victoria Landcare Survey 2004 N=343 n=319

Region	N groups	Median members	Mean members
Corangamite	23	16	64
East Gippsland	22	24	27
Glenelg-Hopkins	35	19	26
Goulburn-Broken	47	25	36
Mallee	10	63	109
North Central	40	26	43
North East	24	39	56
Port Phillip	41	32	55
West Gippsland	45	25	30
Wimmera	32	33	52
Totals	2004	319 [721]	26
	1998	[890]	24
	1995	[700]	23
	1994	[500]	na

Appendix

Table 2

2004 mean membership as % of properties in area, by region

Landcare Victoria Survey 2004 N=343

Region	n	2004	1998	1995
Corangamite	23	32	29	36
East Gippsland	22	41	na	63
Glenelg Hopkins	35	51	58	63
Goulburn Broken	47	29	31	27
Mallee	10	69	78	48
North Central	40	37	48	52
North East	24	52	58	45
Port Phillip	41	32	27	36
West Gippsland	45	34	na	50
Wimmera	32	55	56	43
State	319	41	46	50

Appendix

Table 3

Organisations who assisted Landcare groups

Landcare Victoria Survey 2004 N=343 n=328

Organisation type	n	%
Catchment Management Authority	240	73%
Local government	158	48%
State government	131	40%
Federal government	126	38%
Other Landcare groups	109	33%
Victorian Farmers Federation	91	28%
Conservation groups	64	20%
Landcare Australia Ltd	58	18%
Education groups	46	14%
Local service clubs	42	13%
National Landcare Facilitator Project	42	13%
Industry groups - Topcrop, Target 10	35	11%
Recreation groups	15	5%
Indigenous groups	11	3%
Other	11	3%
Scouts	3	1%

Appendix

Table 4

Views on how the groups operate by region - % agree with statement, and mean scores (1-5)

Victoria Landcare Survey 2004 N=343

Region	n	At times our people have been in leadership positions too long	Some issues I think important are not addressed in our group	The Government expects Landcare members to do too much of the work fixing land & water degradation	The scale of environmental problems in our region is beyond the capacity of Landcare groups alone to address	Leaders in our group are overworked	A few people dominate decision making in the group	There are only a few highly active members in group	We don't usually follow up with members after continued absence from activities	Separating the NLP from NHT increased red-tape for group	The CMA is placing less emphasis on working with groups to implement on-ground work & this has reduced member enthusiasm	Our group has had problems completing some projects	It has been difficult to get local government involved in our work	Group has a policy to change leaders frequently (every 1 - 2 years)	Our group has a clear idea of where it is headed	We usually organise for someone to visit new members & explain how the group operates	There is a strong social connection, bond in the group	Resources are shared fairly among members	Group has more influence on what we do as a group than the CMA or governments	I feel appreciated & receive acknowledgment for the work I do	People are willing to compromise to reach decisions acceptable to most members	There is usually someone willing to take on leadership roles in group	Our group publicly acknowledges the contribution of members to projects	We provide new members with background info about group	In recent years we have taken time to look back over our achievements	Our group has identified a clear way of evaluating success of projects undertaken	Our group has involved Indigenous groups in planning or other group work	Establishing the CMA increased the support our group receives from government
Corangamite	19	52.2	38.1	31.8	61.0	54.5	22.7	91.3	68.2	38.1	40.9	45.5	28.6	15.0	55.0	0.0	64.0	71.0	60.0	64.0	76.0	41.0	43.0	50.0	57.0	25.0	14.0	53.0
mean		2.9	3.2	2.4	3.8	2.4	3.4	1.8	2.5	2.7	2.9	2.9	3.2	2.7	3.3	1.9	3.7	4.0	3.4	3.6	3.8	2.6	3.4	3.2	3.4	2.8	2.4	3.4
East Gippsland	21	47.4	15.8	25.0	85.0	30.0	30.0	66.7	66.7	27.8	35.0	65.0	50.0	32.0	52.0	25.0	62.0	85.0	62.0	55.0	71.0	45.0	50.0	63.0	65.0	20.0	5.0	57.0
mean		2.8	3.4	2.5	4.2	2.7	3.2	2.2	2.6	2.8	2.8	2.6	2.6	2.6	3.4	2.3	3.7	4.2	3.6	3.5	3.7	3.0	3.4	3.5	3.6	3.0	1.9	3.2
Glenelg Hopkins	33	25.7	28.6	22.9	50.0	25.0	20.6	71.4	50.0	54.5	38.2	50.0	30.3	34.0	31.0	16.0	62.0	68.0	52.0	65.0	73.0	38.0	64.0	45.0	56.0	24.0	3.0	73.0
mean		3.1	3.3	2.4	3.3	3.0	3.3	2.4	2.7	2.4	2.7	2.7	2.9	2.9	3.1	2.2	3.6	3.6	3.2	3.6	3.8	2.9	3.6	3.2	3.4	2.9	2.1	3.7
Goulburn Broken	47	38.3	31.9	39.6	77.0	59.6	29.2	66.7	58.3	45.7	29.2	43.8	45.8	15.0	62.0	24.0	71.0	75.0	69.0	58.0	81.0	46.0	67.0	58.0	66.0	36.0	16.0	51.0
mean		2.9	3.2	2.2	4.0	2.3	3.2	2.4	2.7	2.6	2.9	3.0	2.8	2.5	3.5	2.4	3.8	4.0	3.9	3.5	3.8	3.1	3.8	3.5	3.6	3.2	2.2	3.3
Mallee	11	50.0	25.0	50.0	67.0	41.7	33.3	66.7	41.7	75.0	0.0	66.7	33.3	25.0	42.0	0.0	58.0	75.0	58.0	92.0	75.0	50.0	75.0	27.0	33.0	25.0	0.0	100.0
mean		2.8	3.2	1.7	3.6	2.7	2.9	2.3	3.2	2.2	3.7	2.6	3.2	2.8	3.1	2.1	3.7	3.9	3.7	4.0	3.8	2.9	3.7	2.7	3.1	2.8	1.9	4.2
North Central	40	29.3	23.8	41.5	93.0	47.5	35.0	58.5	51.3	47.4	48.7	50.0	19.5	33.0	59.0	15.0	68.0	90.0	72.0	66.0	88.0	50.0	73.0	49.0	62.0	50.0	14.0	50.0
mean		3.4	3.3	1.9	4.5	2.7	3.2	2.4	2.6	2.3	2.7	2.8	3.5	3.0	3.5	2.4	3.8	4.0	3.8	3.8	4.0	3.1	3.9	3.3	3.5	3.2	2.2	3.4
North East	25	33.3	26.9	34.6	59.0	48.1	29.6	73.1	50.0	76.0	46.2	42.3	34.6	23.0	52.0	36.0	65.0	77.0	70.0	65.0	77.0	44.0	62.0	54.0	48.0	54.0	21.0	40.0
mean		3.3	3.3	1.8	3.8	2.7	3.5	2.3	2.7	1.9	2.7	3.0	3.1	2.5	3.6	2.6	3.8	3.9	3.9	3.6	4.0	2.9	3.5	3.5	3.3	3.4	2.5	3.1
Port Phillip	37	27.5	29.3	41.5	75.0	47.5	19.5	68.3	56.1	28.9	12.8	27.5	22.0	18.0	65.0	31.0	80.0	70.0	70.0	65.0	82.0	75.0	80.0	80.0	54.0	38.0	8.0	68.0
mean		3.5	3.3	2.3	4.0	2.8	3.5	2.4	2.8	2.9	3.4	3.5	3.6	2.5	3.6	2.7	4.0	3.7	3.8	3.6	3.8	3.6	3.9	3.8	3.5	3.1	2.1	3.6
West Gippsland	45	40.9	37.8	35.6	64.0	47.7	22.2	82.2	71.1	28.2	26.7	37.8	31.1	16.0	44.0	41.0	60.0	77.0	56.0	73.0	78.0	38.0	58.0	56.0	56.0	22.0	16.0	40.0
mean		2.9	3.0	2.4	3.7	2.7	3.3	2.1	2.5	2.8	3.1	3.0	3.0	2.5	3.2	3.0	3.6	3.9	3.5	3.7	3.7	2.7	3.4	3.4	3.5	2.9	2.2	3.1
Wimmera	34	44.1	14.7	39.4	74.0	23.5	32.4	68.6	44.1	36.4	34.3	20.6	29.4	29.0	56.0	9.0	68.0	65.0	56.0	58.0	65.0	31.0	53.0	41.0	55.0	36.0	9.0	38.0
mean		2.7	3.5	2.3	3.9	3.1	3.0	2.3	2.9	2.7	2.9	3.4	2.9	3.0	3.3	2.3	3.6	3.6	3.5	3.6	3.6	2.8	3.4	3.2	3.5	3.2	2.4	3.1
State	312	37.0	28.0	62.5	71.4	43.5	26.9	70.9	56.5	43.6	32.2	42.1	31.8	23.5	52.8	22.2	66.9	75.2	63.1	64.8	77.6	46.1	63.4	54.6	56.8	34.2	11.5	53.5
State mean		3.1	3.3	2.2	3.9	2.7	3.3	2.3	2.7	2.6	2.9	3.0	3.1	2.7	3.4	2.5	3.7	3.9	3.7	3.6	3.8	3.0	3.6	3.4	3.5	3.1	2.2	3.4

Appendix

Table 5

Landcare respondent assessments of longer-term group outcomes: regional trends

Landcare Victoria Survey 2004 N=343

CMA Region	n	Attracted widespread participation from landholders in area			Improved communication between landholders in area			Built trust among landholders			Enhanced sense of community (social connectedness)			Contributed to greater co-operation among landholders to address NRM issues		
		No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success
Corangamite	23	22%	48%	30%	27%	50%	23%	23%	45%	32%	33%	43%	24%	40%	35%	25%
East Gippsland	21	14%	48%	38%	14%	62%	24%	30%	65%	5%	19%	62%	19%	26%	42%	32%
Glenelg Hopkins	35	23%	54%	23%	24%	59%	18%	25%	56%	19%	34%	38%	28%	39%	50%	11%
Goulburn Broken	45	31%	40%	29%	22%	42%	36%	28%	39%	33%	18%	40%	42%	43%	33%	25%
Mallee	12	17%	50%	33%	8%	42%	50%	8%	42%	50%	33%	33%	33%	25%	17%	58%
North Central	40	38%	43%	20%	30%	50%	20%	40%	35%	25%	26%	41%	33%	43%	38%	19%
North East	27	19%	41%	41%	30%	33%	37%	26%	48%	26%	15%	44%	41%	36%	36%	27%
Port Phillip	39	18%	62%	21%	26%	50%	24%	21%	38%	41%	17%	52%	31%	48%	34%	17%
West Gippsland	44	34%	39%	27%	23%	41%	36%	19%	49%	33%	20%	45%	34%	34%	44%	22%
Wimmera	34	26%	18%	56%	18%	36%	45%	24%	33%	42%	15%	42%	42%	32%	42%	26%
State	320	26%	43%	31%	23%	46%	30%	26%	44%	30%	22%	44%	34%	38%	38%	24%

* These may not equal 100% due to rounding

Appendix

Table 6a

Landcare respondent assessments of longer-term group outcomes: regional trends

Landcare Victoria Survey 2004 N=343

CMA Region	n	Increased awareness of land/water degradation			Increased understanding of what sustainable farming involves			Increased understanding of what biodiversity (native plants & animals) conservation involves			Increased appreciation of how actions on a farm can lead to catchment impacts			Contributed to changed land management practices		
		No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success
Corangamite	23	17%	35%	48%	55%	40%	5%	22%	48%	30%	36%	41%	23%	23%	50%	27%
East Gippsland	21	25%	50%	25%	50%	39%	11%	25%	50%	25%	39%	44%	17%	50%	40%	10%
Glenelg Hopkins	35	18%	39%	42%	33%	41%	26%	17%	59%	24%	26%	58%	16%	35%	50%	15%
Goulburn Broken	45	25%	50%	25%	44%	49%	7%	27%	60%	13%	37%	40%	23%	45%	41%	14%
Mallee	12	27%	27%	45%	17%	17%	67%	8%	42%	50%	33%	25%	42%	27%	36%	36%
North Central	40	33%	38%	30%	53%	38%	9%	28%	50%	23%	40%	31%	29%	49%	35%	16%
North East	27	26%	30%	44%	39%	26%	35%	19%	42%	38%	33%	29%	38%	38%	38%	25%
Port Phillip	39	26%	46%	28%	45%	39%	16%	19%	55%	26%	40%	40%	20%	38%	50%	13%
West Gippsland	44	11%	50%	39%	44%	38%	18%	31%	40%	29%	33%	40%	28%	36%	39%	25%
Wimmera	34	19%	34%	47%	32%	35%	32%	32%	38%	29%	38%	28%	34%	33%	33%	33%
State	320	22%	42%	36%	42%	38%	20%	24%	49%	27%	36%	38%	26%	39%	41%	20%

* These may not equal 100% due to rounding

Appendix

Table 6b

Landcare respondent assessments of longer-term group outcomes: regional trends

Landcare Victoria Survey 2004 N=343

CMA Region	n	Brought more resources into our area to address land/water degradation			Group members have completed important on-ground work			Improved the condition of land/water resources in the area			There is higher agricultural productivity in the area than there would have been otherwise		
		No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success	No/ little success	Some success	High success
Corangamite	23	26%	22%	52%	%	35%	65%	5%	52%	43%	47%	33%	20%
East Gippsland	21	32%	47%	21%	10%	38%	52%	29%	48%	24%	47%	35%	18%
Glenelg Hopkins	35	27%	47%	27%	9%	46%	46%	24%	44%	32%	39%	35%	26%
Goulburn Broken	45	27%	45%	27%	4%	33%	63%	25%	36%	39%	44%	44%	12%
Mallee	12	9%	36%	55%	%	33%	67%	17%	42%	42%	40%	40%	20%
North Central	40	38%	23%	38%	10%	20%	70%	33%	18%	49%	62%	24%	14%
North East	27	24%	28%	48%	4%	33%	63%	7%	30%	63%	46%	29%	25%
Port Phillip	39	29%	32%	38%	10%	31%	60%	27%	39%	34%	50%	31%	19%
West Gippsland	44	21%	33%	47%	7%	27%	67%	18%	36%	45%	45%	36%	18%
Wimmera	34	40%	27%	33%	18%	21%	62%	29%	32%	38%	30%	44%	26%
State	320	29%	34%	38%	8%	31%	62%	23%	36%	41%	45%	35%	19%

* These may not equal 100% due to rounding

Appendix

Table 7

Dollar value of all sources of assistance by region

Landcare Victoria Survey 2004 N=343

Region	n	Federal / State		Local Govt		Private funds		TOTAL
		Median	Total	Median	Total	Median	Total	
Corangamite	19	\$15,000	\$583,482	\$1,250	\$23,230	\$24,000	\$48,000	\$654,712
East Gippsland	20	\$6,020	\$185,358	na	na	\$5,300	\$10,600	\$195,958
Glenelg Hopkins	40	\$5,000	\$395,077	\$500	\$34,450	\$4,000	\$61,061	\$490,588
Goulburn Broken	46	\$6,500	\$741,662	\$1,500	\$45,622	\$400	\$53,086	\$840,370
Mallee	12	\$9,200	\$206,155	\$7,500	\$15,000	\$6,000	\$104,550	\$325,705
North Central	39	\$4,700	\$581,623	\$1,000	\$301,743	\$2,500	\$19,300	\$902,666
North East	26	\$13,576	\$368,689	\$750	\$16,500	\$6,000	\$47,550	\$432,739
Port Phillip	39	\$5,558	\$765,392	\$2,000	\$84,441	\$950	\$32,620	\$882,454
West Gippsland	44	\$10,538	\$535,678	\$560	\$57,265	\$2,500	\$77,000	\$669,943
Wimmera	33	\$11,350	\$501,293	\$2,300	\$36,600	\$1,590	\$43,990	\$581,883
State	318	\$8,000	\$4,864,410	\$1,235	\$614,851	\$2,000	\$497,757	\$5,977,017

Appendix

Table 8

Regional variations in engagement with local government (% saying their group has a contact officer with local govt, DPI or CMA)

Landcare Victoria Survey 2004 N=343 n=328

Region	n	DPI	CMA	Local govt
Corangamite	23	61%	61%	52%
East Gippsland	22	59%	77%	18%
Glenelg Hopkins	37	40%	92%	28%
Goulburn Broken	46	75%	65%	52%
Mallee	12	75%	100%	33%
North Central	41	49%	71%	83%
North East	28	40%	93%	50%
Port Phillip	41	32%	85%	83%
West Gippsland	44	43%	44%	39%
Wimmera	34	55%	67%	62%
State	328	51%	73%	53%

Appendix

Table 9

The role of DPI or CMA staff: regional trends (% respondents who agree with the statement)

Landcare Victoria Survey 2004 N=343

Region	n	Have little influence on group decisions	Show respect for skills & knowledge of members	Have good communication skills	Have good technical knowledge
Corangamite	23	35%	70%	78%	78%
East Gippsland	22	50%	73%	68%	73%
Glenelg Hopkins	38	26%	87%	89%	68%
Goulburn Broken	46	43%	72%	67%	72%
Mallee	12	42%	100%	75%	83%
North Central	41	44%	63%	63%	68%
North East	28	39%	71%	71%	71%
Port Phillip	42	48%	57%	57%	62%
West Gippsland	44	25%	55%	52%	66%
Wimmera	35	31%	66%	63%	66%
State	331	38%	69%	67%	69%

Appendix

Table 10

Extent group received sufficient support from government: regional trends
 (% reporting adequate support)

Landcare Victoria Survey 2004 N=343

Region	n	Information & advice on land management	Money or materials to manage land & water degradation	Leadership & management training for group leaders	Coordination onground group activities (field days, tree planting, fencing etc)	Strategic action planning	Assistance with grant applications	Assistance with group administration (newsletters, project management)
Corangamite	21	95%	67%	47%	75%	61%	85%	67%
East Gippsland	21	76%	50%	50%	89%	75%	90%	86%
Glenelg Hopkins	34	79%	52%	53%	68%	74%	79%	81%
Goulburn Broken	48	83%	55%	40%	72%	60%	73%	57%
Mallee	12	92%	50%	50%	67%	83%	75%	83%
North Central	40	74%	47%	57%	67%	53%	74%	54%
North East	27	80%	41%	42%	58%	64%	65%	52%
Port Phillip	39	64%	53%	51%	54%	62%	71%	53%
West Gippsland	42	88%	55%	64%	83%	81%	90%	81%
Wimmera	32	86%	61%	59%	81%	61%	72%	73%
State	316	80%	53%	52%	71%	66%	77%	67%

Appendix

Table 11

Involvement in catchment and area planning: by region

Landcare Victoria Survey 2004 N=343

Region	n	Group has/is developing a catchment plan that links individual plans to protect catchment assets or address key issues	Met to establish an annual action plan to set out the group's priorities & ways to achieve them	Action plan documented	Action plan was made available to most members	Group or executive met to review progress with the plan
Corangamite	22	43%	50%	73%	40%	45%
East Gippsland	22	43%	73%	100%	94%	59%
Glenelg Hopkins	38	41%	34%	71%	86%	57%
Goulburn Broken	47	45%	57%	89%	82%	61%
Mallee	12	75%	92%	91%	100%	73%
North Central	41	44%	46%	81%	85%	65%
North East	26	62%	50%	92%	71%	64%
Port Phillip	40	36%	55%	87%	78%	83%
West Gippsland	44	55%	60%	89%	71%	39%
Wimmera	35	29%	46%	88%	94%	56%
State	324	45%	53%	87%	80%	60%

Appendix

Table 12

Assessment of longer-term Landcare group outcomes: regional trends (mean scores: 1-5)

Landcare Victoria Survey 2004 N=339

Region	Set 1 Engagement	Set 2 Knowledge	Set 3 Social capital	Set 4 On-ground work	Set 5 Change in conditions
Corangamite	3.0	3.0	3.1	3.5	3.1
East Gippsland	3.2	2.9	2.9	2.9	2.7
Glenelg Hopkins	3.0	3.0	2.8	3.2	3.0
Goulburn Broken	3.1	2.9	3.1	3.2	3.0
Mallee	3.3	3.3	3.2	3.4	3.0
North Central	2.9	2.8	2.9	3.2	2.8
North East	3.2	3.3	3.1	3.4	3.3
Port Phillip	3.1	2.9	3.0	3.2	3.0
West Gippsland	3.0	3.0	3.0	3.4	3.0
Wimmera	3.4	3.1	3.2	3.2	3.1
State	3.1	3.0	3.0	3.3	3.0