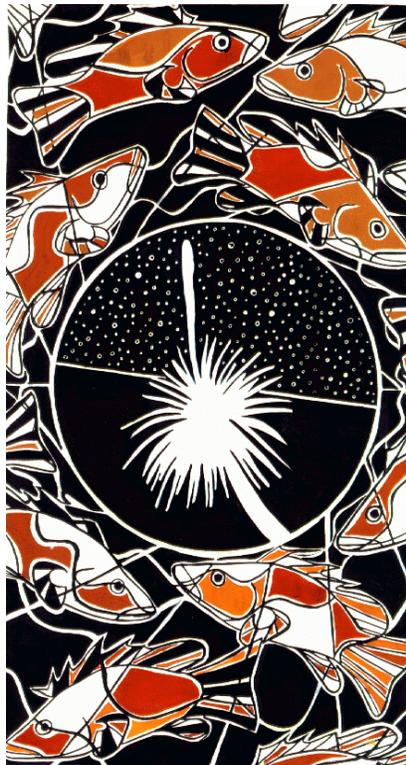


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**Landcare participation and outcomes in the  
Queensland Murray-Darling Basin**

**Ian Byron and Allan Curtis**

May 2002  
Albury, NSW



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## **1.0 EXECUTIVE SUMMARY**

### **1.1 Introduction**

Australians have invested heavily in voluntary approaches to the management of environmental problems. In line with this approach, Landcare groups have emerged as an important delivery mechanism for Commonwealth and state programs aimed at achieving improved environmental outcomes. Despite being widely acclaimed as an international success story, concerns are being voiced about the commitment of government and the capacity of rural people to sustain these local organisations.

There have been widespread claims of burnout amongst Landcare groups and of the potential for burnout to reduce the capacity of these groups to contribute to improved natural resource management. Although the term burnout has been used frequently in reference to Landcare, there is a lack of information about the extent of burnout, the process leading to burnout, the impact of burnout and strategies that can be used to manage burnout.

In August 2001, a mailed survey was sent to a random sample of 400 Landcare members and all Landcare leaders from Landcare groups in the Queensland Murray-Darling Basin (QMDB). This survey aimed to:

1. identify and validate a burnout measure that can be used with Landcare leaders and members;
2. identify the extent Landcare members and leaders in the QMDB were experiencing burnout;
3. explore causal links between burnout and key variables;
4. identify the extent that burnout is affecting the capacity of Landcare groups to contribute to improved natural resource management; and
5. identify ways of managing burnout and sustaining Landcare groups as effective local organisations.

A final response rate of 64% was achieved.

This research used a modified version of the Maslach Burnout Inventory, which is the most widely accepted and validated burnout measure. The Maslach Burnout Inventory measures burnout across three elements or sub-scales: emotional exhaustion, depersonalisation and reduced personal accomplishment. Our findings confirmed this three-factor structure of burnout and suggested that these scales were reliable (able to produce consistent results). In addition, the association of independent variables with the sub-scales of the Maslach Burnout Inventory were consistent with many of the factors identified in burnout literature as important contributors.

### **1.2 Results**

#### **1.2.1 Landcare participation and outcomes in the QMDB**

Survey data highlighted a very utilitarian focus with most respondents reporting a strong desire to achieve improved environmental outcomes. Over 80% of respondents indicated that addressing land and water degradation, improving environmental conditions, and improving land management were important reasons for them joining Landcare. The opportunity to learn about land management was also a strong motivator for involvement (77% agreed).

Research findings suggested that Landcare activity had increased significantly over recent years particularly since the introduction of the Natural Heritage Trust (NHT). Respondents were significantly more likely to report that their most active year, in terms of the time and effort committed to Landcare related activities, occurred after the introduction of the NHT. Over half of all respondents said that their most active year occurred in either 2000 or 2001.

Most respondents said their group had made a significant contribution to improving natural resource conditions in their region (69% agreed). At the same time, around half of the respondents said they had not accomplished what they wanted from Landcare (48%) and that on-ground work needed on their property had not been completed (52%).

Respondents indicated moderate success across a range of possible Landcare group outcomes including enhancing group cohesion, improving the knowledge of group members, building linkages with other stakeholders, on-ground results and influencing stakeholders/decision making.

Contributing to improved land management practices was the highest rated group outcome. Increased understanding of processes leading to land and water degradation amongst Landcare members and brought more resources into the area were the next highest rated group outcomes. Topics where respondents reported least success were influencing natural resource management decision making, increasing the awareness of issues amongst non-Landcare members, and increasing political support for efforts to address issues.

Most respondents thought that the government expected Landcare to do too much of the work of fixing land and water degradation (61%), that they were participating in Landcare at or near their capacity (65%) and that the outcomes from their involvement were not sufficient given the time and effort they committed (49%). Approximately half of the survey respondents also said that both financial (57%) and non-financial support (43%) was insufficient to address environmental degradation. Our analyses suggested that these were important factors limiting the capacity of groups to effectively address major natural resource issues.

While there was some concern about the level of resources available, the majority of respondents felt that resources were shared fairly amongst group members. Only 17% of respondents disagreed.

Respondents were generally positive in their assessment of group leadership, with only 11% saying their group leaders had been ineffective. However, half of the respondents could not describe how their group managed leadership succession and over a third (36%) said that people had been in leadership positions for too long.

Most groups appear to have adopted an open and inclusive approach to decision making. Over half of the survey respondents said they had sufficient input in decision making (51%) and that group members were willing to compromise (57%). Despite these findings, data indicated a tendency for more active respondents to have greater input in decision making. Most respondents also thought that their group had autonomy from government departments in the decision making process (49% agreed, 23% disagreed).

Survey data demonstrated that most Landcare participants had been or were currently involved in property planning (75%) and group strategic planning (62%). However, a quarter of respondents reported no involvement in property planning and data indicated a need for greater attention to documenting and disseminating the outcomes of planning processes. Of the respondents who said their group had completed group strategic planning, 45% reported that the outcomes had not been documented and disseminated to members.

There were a number of significant differences between Landcare group leaders and members in the QMDB. Landcare groups leaders were significantly more:

- active;
- confident about their contribution to group effectiveness;
- likely to report sufficient input in decision making;
- likely to report resources were shared fairly amongst their group;
- likely to report that leaders in their group were over worked; and
- concerned about leadership succession.

### 1.2.2 Burnout

Reduced personal accomplishment was the aspect of burnout experienced by most respondents, with the majority of both the leader and member samples scoring in the high burnout range on this sub-scale, although group leaders had significantly lower burnout on this sub-scale. High burnout was less prevalent on the emotional exhaustion and depersonalisation sub-scales. However, it appears that emotional exhaustion and depersonalisation are likely to be at least a moderate issue for over a quarter of all respondents.

Sample	n	High burnout	Medium burnout	Low burnout
<i>Emotional exhaustion</i>				
Members	160	7%	21%	72%
<i>Depersonalisation</i>				
Members	164	11%	16%	73%
<i>Personal accomplishment</i>				
Members	161	84%	12%	4%
Leaders	76	66%	23%	11%

Attendance at fewer Landcare group activities was significantly linked to higher burnout on the personal accomplishment sub-scale. Similarly, a small minority of respondents said that they did not devote as much time as they could to Landcare and these individuals also had significantly higher burnout on the personal accomplishment sub-scale. These findings suggest that higher levels of activity would mitigate burnout. However, such a strategy fails to take into account the limited capacity of Landcare participants to volunteer additional time and resources. Nearly two thirds of the respondents said they were devoting as much time to Landcare as they could and these individuals reported significantly higher levels of emotional exhaustion. In addition, higher levels of emotional exhaustion and depersonalisation were also significantly linked to respondents who said they had made a conscious decision to reduce their level of involvement.

Over half of all respondents indicated that the government expected Landcare groups to do too much of the work of addressing land and water degradation. These individuals had higher levels of burnout on both the emotional exhaustion and depersonalisation sub-scales. At the same time, nearly half the respondents reported that the funding available was insufficient to address land and water degradation on their property, and approximately a third said that the scale of issues in their region were beyond the capacity of Landcare groups to address. Both of these factors were significantly linked with higher burnout on the emotional exhaustion sub-scale.

There was some uncertainty amongst respondents regarding the level of success and the rewards that they had achieved through their involvement in Landcare. Both the perception of limited success in completing projects and inadequate reward for one's involvement were significantly linked to higher levels of burnout on the emotional exhaustion and depersonalisation sub-scales.

A small minority of respondents said they did not have enough input in decision making. Over a third of respondents were also uncertain about the extent of their contribution to decision making. Respondents who were less satisfied with their input in decision making had significantly higher burnout on the emotional exhaustion and personal accomplishment sub-scales. Higher levels of depersonalisation were also associated with individuals who reported that members in their group were not willing to compromise to reach decisions acceptable to most members.

Survey findings indicated a high degree of uncertainty about the extent groups had completed priority setting or developed clear goals and objectives. Respondents who reported their group had not developed priorities or had made less progress toward the development, documentation and dissemination of clear goals and objectives had higher burnout in terms of reduced personal accomplishment.

Over a third of the respondents said that people in their group had been in leadership positions for too long. This perception was significantly linked with higher burnout on the personal accomplishment sub-scale.

In the QMDB social interaction was rated as the second least important reason (of those included in the survey) motivating respondents to join Landcare. In turn, less than half of the respondents agreed that their Landcare group had a strong social connection or bond. Respondents who said their group had a strong social connection or bond had significantly lower burnout in terms of reduced personal accomplishment.

### **1.3 The impact of burnout on group outcomes**

Burnout on the depersonalisation and personal accomplishment sub-scales contributed to lower ratings on Landcare group outcomes and an overall group outcomes index. To the extent that burnout persists or progresses, the capacity of Landcare groups in the QMDB to contribute to natural resource management outcomes is likely to be undermined.

### **1.4 Conclusions**

With the majority of respondents experiencing high levels of burnout on the personal accomplishment sub-scale and over a quarter in the moderate to high range on emotional exhaustion and depersonalisation, efforts to maintain and build Landcare groups as effective organisations in the QMDB must consider methods of mitigating burnout.

There are five main strategies that appear critical to effective management of burnout.

1. Realistic expectations of Landcare groups need to be articulated. These expectations need to be based on a realistic assessment of the capacity of Landcare groups to contribute to on-ground improvement in resource conditions. Curtis and Lockwood (2000) suggested that the most important roles for Landcare groups were to:
  - mobilise participation;
  - initiate and support learning;
  - pull down resources to support local efforts; and
  - undertake on-ground work to the extent that time and resources are available.

It appears that the expectations of government are an important contributor to burnout, particularly in light of the limited resources reported by many respondents. Organisational theory suggests that groups should work in conjunction with agency staff to develop indicators that are relevant, specific, achievable and observable (Bailey *et al.* 1989).

2. While many respondents were involved in planning, greater attention needs to be given to the documentation and dissemination of results from planning activities. Group planning should incorporate the development of intermediate indicators of success across a range of expected outcomes to help mitigate burnout (Maslach and Leiter 1997; Curtis and Van Nouhuys 1999). Groups must have access to adequate resources to assist in this process. These resources may include access (or greater access) to trained support staff, computer facilities and photocopying/printing services.
3. Although most respondents reported an open and inclusive approach to decision making, Landcare groups need to explore methods of involving less active members in decision making process. Landcare members must be clear about how decisions are made in their group, feel their input is valued, and know how their opinion can be expressed. Some simple ground rules to be used during group discussions may help prevent

dominance by more vocal members. Establishing these processes should be included in the first stage of decision making.

4. It is important that Landcare groups identify a process for leadership succession. Groups could identify a maximum term that individuals can occupy leadership positions. At the same time, it is also important not to turn leaders over too frequently as this may prevent the development of leadership skills or impede leader commitment to the achievement of outcomes. Strategies for leadership succession also need to consider the possibility that at times, there may be no one willing to take on leadership roles. In these circumstances it is important that individuals are not unduly pressured into leadership positions. Rather, group leadership positions could be split into smaller less demanding roles.
5. There needs to be greater affirmation of the importance of social interaction in maintaining individuals' interest and engagement in Landcare. There also needs to be greater opportunities for group members to be involved in activities that build social cohesion. With many rural areas in Australia experiencing community decline (Lawrence 1992), the role of Landcare in providing a social support system may also have important implications beyond mitigating burnout.

## **2.0 INTRODUCTION**

### **2.1 Background to the research project**

Australians have invested heavily in voluntary approaches to the management of environmental problems. In line with this approach, Landcare groups have emerged as an important delivery mechanism for Commonwealth and state programs aimed at achieving improved environmental outcomes. Despite being widely acclaimed as an international success story, concerns are being voiced about the commitment of government and the capacity of rural people to sustain these local organisations.

There have been widespread claims of burnout amongst Landcare groups and of the potential for burnout to reduce the capacity of these groups to contribute to improved natural resource management. Although the term burnout has been used frequently in reference to Landcare, there is a lack of information about the extent of burnout, the process leading to burnout, the impact of burnout and strategies that can be used to manage burnout.

Preliminary research (Byron *et al.* 2001) during 1999 in the Goulburn Broken region of Victoria was the first study of burnout amongst Landcare participants and used a modified version of the Maslach Burnout Inventory (MBI). The 1999 study suggested that the MBI was a valid and reliable tool for assessing burnout in Landcare participants. In this preliminary study there was some evidence of high burnout, particularly in terms of reduced feelings of accomplishment. Higher burnout was linked to increased levels of activity and some ongoing group management issues, indicating considerable potential for burnout to increase.

In response to widespread concerns about burnout in Landcare, Land and Water Australia funded Charles Sturt University (CSU) to undertake research to explore the assessment and management of burnout in Landcare members, leaders and coordinators. As part of this larger project and in partnership with staff from the Department of Natural Resources and Mines (DNRM), a mail survey was undertaken with Landcare group members and leaders in the Queensland Murray-Darling Basin (QMDB) in August 2001.

Similar studies are being undertaken with Landcare groups in the Lachlan catchment (NSW) and in a re-test of respondents from the 1999 study in the Goulburn Broken (Vic). Surveys exploring working conditions and burnout amongst Landcare support staff have recently been completed in Victoria and Queensland. Findings from these studies are available as research reports (Vic: Byron and Curtis 2001; Qld: Byron and Curtis In Press).

The focus of this report is on findings from the study of Landcare members and leaders in the QMDB.

### **2.2 Research aims**

The aims of this research were to:

1. identify and validate a burnout measure that can be used with Landcare leaders and members;
2. identify the extent Landcare members and leaders in the QMDB were experiencing burnout;
3. explore causal links between burnout and key variables;
4. to identify the extent that burnout is affecting the capacity of Landcare groups to contribute to improved natural resource management; and
5. to identify ways of managing burnout and sustaining Landcare groups as effective local organisations.

### 2.3 Study area

The QMDB is located in southern Queensland covering an area of 260,791 square kilometres, some 15% of the state or 25% of the entire Murray-Darling Basin (MDB). The Queensland section of the MDB runs from the NSW border and includes the population centres of Toowoomba, Cunnamulla, Augathella, Roma and Miles. The QMDB includes the Condamine, Border Rivers, Warrego-Paroo, and Maranoa-Balonne catchments.

**FIGURE 1**  
**Location of the Queensland Murray-Darling Basin**



## **3.0 METHODOLOGY**

The use of the Maslach Burnout Inventory [refer to section 5.2] and the need to survey a random selection of Landcare participants across a large geographic area, meant that a mail survey was the most appropriate data collection method.

In August 2001, mail surveys were sent to all Landcare group leaders (104) and a random selection of 400 members from the 50 plus Landcare groups (approx 2000 members) operating in the QMDB at that time. The random sample of Landcare members also included group leaders. Twenty-four leaders were included in the member sample, providing a combined sample size of 480 individuals. Staff from the DNRM in Toowoomba compiled these mailing lists.

Drawing upon relevant literature [see below] and our previous research in the Goulburn Broken (Byron *et al.* 1999) a draft survey instrument was developed and later pre-tested using a workshop with seven Landcare members from the Condamine catchment. Landcare support staff from DNRM also made important contributions to survey design through workshop sessions held during development of the survey.

Survey design and mail out procedures followed Dillman's (1979) Total Design Method. This approach involved presenting the survey in a distinctive booklet format, including a cover letter that clearly explained the purpose and relevance of the study, using reminder/thank you cards, and a second mail out to individuals who did not return the first survey.

Major topic areas covered in the survey are listed below.

### **3.1 Survey topics**

#### **3.1.1 Reasons for joining Landcare**

The nature of an individual's motivation is an important element in understanding why and how burnout can occur (Maslach and Leiter 1997; Pines and Aronson 1988). Questions in the mail survey asked respondents to indicate the importance of a range of potential motivators in explaining their reason for joining Landcare (Curtis and Van Nouhuys 1999).

#### **3.1.2 Participation in Landcare**

The level of activity or workload is considered to be both an important contributor to burnout and a determinant of Landcare group effectiveness (Curtis 2000; Maslach and Leiter 1997). Survey questions covered a range of topics exploring individual and group levels of participation (Curtis 2000), factors likely to affect participation (Curtis and Van Nouhuys 1999), and their contribution to group outcomes (Curtis *et al.* 2000).

#### **3.1.3 Available resources**

Maslach and Leiter (1997) and Farber (1983) considered that burnout was more likely to occur in an organisation where there were insufficient resources to meet anticipated outcomes. In research with Landcare groups, Curtis (2000) concluded that the level of resources was also an important predictor of Landcare group effectiveness. The mail survey included a range of questions exploring the availability and adequacy of financial, technical and administrative resources for Landcare groups in the QMDB.

### **3.1.4 Group Leadership**

Strong group leadership is considered to provide an important buffer against burnout (Maslach 1982). The mail survey covered numerous aspects of group leadership including the perceived effectiveness of group leaders, leadership succession, and experience of group leaders.

### **3.1.5 Planning and monitoring**

Literature on burnout emphasises the importance of organisations developing clear and realistic goals and plans that are accompanied by monitoring programs that include intermediate indicators of success (Cherniss 1980a; Maslach and Leiter 1997). Questions were developed to assess the nature of planning undertaken by individuals and groups, communication of results from planning processes, and monitoring of group progress.

### **3.1.6 Decision making**

The ability of an individual to shape or influence decision making is vital in maintaining engagement and helping to prevent burnout (Cherniss 1980a; Maslach and Leiter 1997). Survey questions explored group autonomy in decision making, inclusiveness of decision-making processes, and willingness to compromise.

### **3.1.7 Group coordination**

Landcare group coordinators or facilitators are widely considered to be an important contributor to the effectiveness of Landcare groups (Campbell 1997; Curtis 2000). Among a wide variety of roles these support staff often guide groups through the important tasks of planning and priority setting. The survey included questions exploring the presence or absence of a group coordinator and the length of time the group had been supported by a coordinator.

### **3.1.8 Awareness of Catchment Management Associations and Landcare Associations**

Staff from the DNRM asked the authors to develop a range of questions exploring respondents' awareness of Catchment Management Associations (CMAs) and Landcare Associations (LAs). These questions also asked respondents to provide an assessment of the value of services provided by these groups.

### **3.1.9 Group outcomes**

The survey included a series of questions seeking each respondent's assessment of the extent their group had achieved a range of outcomes that might be expected from Landcare group activity. Topics included participation, awareness, knowledge and skills, access to resources, social cohesion and changes in environmental conditions (Curtis and De Lacy 1996; Curtis *et al.* 2000; Selin *et al.* 2000).

### **3.1.10 Background personal information**

Various researchers have reported relationships between demographic variables such as age and gender with burnout. Survey questions covered these basic demographic variables and some specific topics that the research team thought may influence respondents' experience of Landcare, such as membership of other volunteer groups, property size, on-property and off-property workload, and on-property profitability.

## 4.0 DATA ANALYSIS

Findings in this report have been presented so they can be interpreted without understanding the statistical methods used. However, for those who are interested to know how we approached data analysis, a brief explanation of the statistical methodology is given below.

Statistical analysis included in this report consists of descriptive statistics, Spearman rank order correlations, Gamma correlations, non-parametric chi-square tests, multiple regression, principal components factor analysis, alpha estimation, and confirmatory factor analysis. Confirmatory factor analysis was conducted using the AMOS program (Arbuckle 1997). All other statistical analyses used the SPSS software package.

Spearman rank order correlations were used to identify hypothesised relationships between variables. For example, higher activity was hypothesised as being linked to higher levels of burnout. Spearman rank order correlations rank respondents on each variable from highest to lowest and determine the extent that there is a relationship between ranks on the two variables. For cases exploring the relationship between two ordinal variables, Gamma correlations were used. A negative correlation coefficient or  $r_s$  indicates that a higher score on one variable is linked to a lower score on the other. The value of  $r_s$  can range from 1 to  $-1$  with higher values (either negative or positive) indicating a stronger relationship.

Kruskal-Wallis chi-square tests were used to determine the presence of significant differences across continuous variables for two or more independent groups. For example the Kruskal-Wallis chi-square was used to determine if there was a significant difference on the level of burnout between rural and urban Landcare members. The value of the chi-square statistic or  $\chi^2$  indicates the strength of the difference between groups on a given variable with a higher value indicating a larger difference. The Pearson chi-square test was used to determine the presence of differences across ordinal or binomial data for two or more independent groups. For example, the Pearson chi-square test was used to determine if there was significant difference between groups with or without a coordinator for level of planning undertaken.

Multiple regression with optimal scaling was used to better determine the extent that a number of independent variables or factors identified by correlation or chi-square tests contributed to the observed scores on a dependent variable, in this instance burnout. The  $R^2$  statistic provides a measure of the amount of variance explained by variables in the model. The t statistic for each variable in the model can be used to indicate the relative importance of each variable.

Principal components factor analysis was used to reduce a large set of overlapping variables to a smaller set of underlying factors. Statistics computed in this procedure include the factor loadings or correlation between each item and the scale.

Cronbach alpha estimates were used to assess the internal consistency of scales used in this research. This test of reliability measures the extent that a scale has the ability to produce consistent results. De Vaus (1991) suggested that an alpha value above 0.70 indicates that a scale is reliable.

Confirmatory factor analysis was used to assess the degree to which the data fitted with the hypothesised 3-factor structure of burnout as defined by the MBI [refer to section 5.2]. Various fit statistics are reported including the goodness of fit index (GFI), adjusted goodness of fit index (AGFI), non-normed fit index (NNFI), comparative fit index (CFI) and the root mean square error of approximation (RMSEA). With the exception of the RMSEA, where a score between 0.05-0.08 indicates reasonable fit, values below 0.90 indicate that the fit could be improved.

## **5.0 AN INTRODUCTION TO BURNOUT**

### **5.1 What is burnout?**

The term burnout was first used to describe a social problem identified in the 1970's in human service occupations in the USA (Maslach and Schaufeli 1993). Research investigating burnout has since embraced a broad range of occupational and volunteer settings around the globe. While there is no single accepted definition of burnout, literature highlights a number of central elements. These core characteristics of burnout are that:

- it is not simply an end state but a process;
- some form of exhaustion is a crucial element;
- it involves a negative shift in a person's perception; and
- it is associated with problems of reduced professional effectiveness and accomplishment (Freudenberger and Richelson 1980; Maslach 1998; Pines and Aronson 1988).

The widespread use and acceptance of the Maslach Burnout Inventory (MBI) has led to the general acceptance of the associated multi-dimensional definition of burnout. The MBI defines burnout as a process where continued exposure to stressful situations leads to a syndrome characterised by emotional exhaustion, depersonalisation and reduced personal accomplishment (Maslach *et al.* 1996).

- Emotional exhaustion is characterised by a lack of energy and feelings that one's emotional resources are used up. Individuals often become frustrated and feel that they are not able to give of themselves as they have in the past.
- Depersonalisation refers to a tendency towards an unfeeling or impersonal response towards others. Individuals become detached, callous and cynical towards others and/or their organisation.
- Reduced personal accomplishment involves a negative evaluation by individuals of their competence and successful achievement. This is often accompanied by a perception of lack of progress or even lost ground (Cordes and Dougherty 1993; Golembiewski *et al.* 1998).

### **5.2 Measuring burnout**

The MBI is the most widely used and accepted burnout measurement tool (Schaufeli *et al.* 1993). The MBI consists of 22 statements (nine for the emotional exhaustion sub-scale, five for the depersonalisation sub-scale and eight for the personal accomplishment sub-scale) with a seven-point response option (Maslach *et al.* 1996) [Appendix 1].

To assist with interpretation, the MBI test manual includes demographic norms for each sub-scale and provides cut-off points that allow scores to be assigned as high, medium, or low. The demographic norm values are the mean MBI sub-scale scores for a sample of 11,000 human service employees. The demographic norms and the high, medium and low cut-off points are not designed to provide an absolute measure or determinant of the point where an individual is burnt out. Rather, these measures can be used to provide a relative assessment of the degree of burnout in a sample and variables linked to higher burnout scores for each sub-scale.

The MBI does not combine sub-scale scores to give an overall measure of burnout as each sub-scale measures a distinct component of burnout and it is common for sub-scales to have different relationships to the same variable. As a result Maslach *et al.* (1996) recommended that all statistical analysis be conducted with the separate sub-scale scores.

This project used a slightly modified version of the MBI. Modifications were made to ensure that scale items were worded and scored in a manner that was appropriate for Landcare participants. The term recipient is used in MBI items to refer to the people that an individual provides services for. This term caused some confusion in the authors' earlier research (Byron *et al.* 2001) and a decision was made to replace this term with Landcare

members. The original seven-point scale used to score items in the MBI ranged from 0 “never” to 6 “every day”. As a result of the widely varied time frame between Landcare group activities this scale was replaced with 0 “this statement does not reflect how I feel” to 6 “this statement does reflect how I feel”. Maslach *et al.* (1996) recommended that research that modified the MBI should provide independent evidence of scale validity and reliability [refer to section 6.10].

### **5.3 Factors that contribute to burnout**

Three different sets of factors have been identified as contributing to burnout. Most authors identify individual, organisational, and societal factors (Freudenberger 1982; Maslach 1998) [Table 1]. The main organisational factors cited as contributing to burnout are:

- high activity levels;
- unclear goals, plans and expectations;
- poor monitoring and feedback processes; and
- poor leadership/support (Freudenberger 1982; Maslach and Leiter 1997).

The authors’ previous research on burnout in Landcare participants confirmed the importance of these factors in the Landcare setting (Byron *et al.* 2001). The work setting or organisational factors are considered the major contributor to burnout and it is the organisational setting where interventions are most likely to have an impact (Cherniss 1980a; Maslach and Leiter 1997). For these reasons, organisational factors were given the highest priority in this study of burnout in Landcare leaders and members.

Table 1 provides a summary of individual, organisational and social factors identified as contributing to the experience of burnout. Note that the variables that are highlighted are those explored in this research project.



## **6.0 RESULTS**

Results from this research are presented in two main sections. The first section (6.1 through to 6.11) provides a summary of responses to the questions included in the mail survey. The second section (6.12 through to 6.16) explores the extent and factors associated with burnout and the impact of burnout on group outcomes.

As a general guide, the authors consider a significant issue exists where 30% or more of respondents have indicated a problem on a particular variable. This approach has been widely accepted in previous research published by the authors.

All variables included in the survey were examined for significant differences between the Landcare member and leader samples. Any significant differences have been reported [refer to section 6.3.1 and section 6.11]. Where no significant differences between the two samples existed, results from the member sample have been presented.

### **6.1 Response rate**

A final response rate of 64% was achieved. Of the 480 surveys sent out, 262 were returned completed with a further 71 returned to sender because the individual had moved or had not been a member of Landcare for some time.

### **6.2 Reasons for joining Landcare**

Respondents were asked to indicate the importance of possible motivators in explaining why they joined Landcare using a five-point scale ranging from “very unimportant” to “very important” with a “neutral” option in the middle. These were later collapsed into three groups “very unimportant/unimportant”, “neutral”, and “very important/important”.

Survey data highlighted a very utilitarian focus with most respondents reporting a strong desire to achieve improved environmental outcomes. Over 80% of respondents indicated that addressing land and water degradation, improving environmental conditions, and improving land management were important reasons for them joining Landcare. The opportunity to learn about land management was also a strong motivator for involvement. Curtis and Van Nouhuys (1999) thought that the motivation to learn distinguished Landcare from many other voluntary organisations. Government financial support and providing a way to get on-ground work done on their property were also important factors [Table 2].

The high rating of most factors suggests that respondents joined Landcare for a variety of reasons. However, around 40% thought that social interaction and people they respected or their spouse being involved in Landcare were not important [Table 2].

**TABLE 2**  
**Reasons for joining Landcare**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement	n	Very unimportant/ Unimportant	Neutral	Very important/ Important	Mean
To address land/water degradation	175	3%	9%	82%	4.30
To improve environmental conditions in my region	175	4%	10%	86%	4.19
Felt Landcare likely to improve land management	175	2%	14%	84%	4.06
Opportunity to learn more about land management	175	7%	16%	77%	3.91
Provides an opportunity to meet and discuss issues	173	6%	17%	77%	3.86
To increase productivity of my property	179	11%	20%	69%	3.86
Government financial support for Landcare	172	15%	14%	71%	3.81
A way to get on-ground work done on my property	172	20%	23%	57%	3.58
To work locally on a national issue	169	15%	36%	49%	3.47
Widespread community support for Landcare	168	19%	37%	44%	3.33
Landcare has been successful elsewhere	170	16%	39%	45%	3.28
People I respect are involved in Landcare	173	39%	39%	22%	2.69
Social interaction	171	42%	36%	22%	2.67
Spouse or partner involved in Landcare	165	45%	33%	22%	2.58

## 6.3 Participation in Landcare

### 6.3.1 Level of activity

Respondents were asked to indicate both the number and percentage of group activities that they attended over the past 12 months.

As expected, the leader sample reported attending a significantly higher number and proportion of group activities ( $\chi^2_{\text{number}} = 42.814$ ,  $df = 1$ ,  $p < 0.001$ ;  $\chi^2_{\text{proportion}} = 32.060$ ,  $df = 4$ ,  $p < 0.001$ ). Landcare leaders reported attending a median of eight group activities over the past year with 37% reporting attending more than 10 activities. Seventy-eight per cent of the Landcare leader sample said that they attended over half of all group activities. Landcare members attended a median of two activities over the past year and 44% attended more than half of all group activities in the past 12 months [Table 3 and Table 4].

**TABLE 3**  
**Number of Landcare activities attended**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186 Leader sample N=80)**

Sample	Number of group activities attended in past 12 months								Median
	n	None	1-10	11-20	21-30	31-40	41-50	>50	
Leaders	69	2%	61%	22%	6%	3%	3%	3%	8
Members	161	18%	73%	5%	2%	1%	1%	0%	2

**TABLE 4**  
**Proportion of Landcare activities attended**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186 Leader sample N=80)**

Sample	Proportion of group activities attended in past 12 months						
	n	None	Under 25%	Over 25%	Over 50%	Over 75%	All
Leaders	71	6%	8%	8%	20%	35%	23%
Members	157	19%	25%	12%	18%	22%	4%

### 6.3.2 Length of membership

Respondents were asked to indicate the number of years they had been a Landcare member.

The median length of group membership was four years. A small percentage of respondents (<10%) had been a member for longer than 10 years [Table 5].

**TABLE 5**  
**Length of Landcare group membership**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Length of Landcare group membership							
n	< 2 years	2-4 years	4-6 years	6-8 years	8-10 years	> 10 years	Median
163	14%	40%	19%	6%	12%	9%	4 years

### 6.3.3 Most active year

The survey also asked respondents who had been a Landcare member for more than two years to indicate which year was their most active in terms of the time and effort devoted to Landcare group activities.

Survey data clearly demonstrated that respondent's level of activity had increased significantly over recent years. Over half of all respondents indicated that their most active year occurred in either 2000 or 2001 [Table 6].

Curtis (2000) suggested that funding available to groups from 1997 through the Natural Heritage Trust (NHT) had geared up Landcare group activity. Comparing the frequency of respondents' most active year for the years before (1993-1996) and after (1997-2000) the introduction of the NHT, indicated that Landcare participants in the QMDB had been significantly more active after the NHT ( $\chi^2 = 92.231$ ,  $df = 1$ ,  $p < 0.001$ ). Sixty-eight per cent of respondents reported their most active year was in the period after NHT, compared to only 3% for the same length of time before NHT. The year 2001 was not included in these calculations because the survey was undertaken in that year, and therefore would not have represented a full year of activity [Table 6]. To take into account the increased likelihood of more recent members reporting latter years as their most active this comparison was repeated with individuals who had been a member for at least six years. Adopting this approach there was still a significant difference between the years before and after NHT with 68% indicating their most active year was after NHT compared to 9% before NHT ( $\chi^2 = 72.382$ ,  $df = 1$ ,  $p < 0.001$ ).

**TABLE 6**  
**Most active year in Landcare**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

<b>Most active year in Landcare</b>	<b>% of respondents</b>	<b>Cumulative %</b>
1989	1%	1%
1990	1%	2%
1991	2%	4%
1992	0%	4%
1993	0%	4%
1994	1%	5%
1995	1%	6%
1996	1%	7%
1997	9%	16%
1998	4%	20%
1999	15%	35%
2000	40%	75%
2001	25%	100%

#### **6.3.4 Group activity**

Respondents were asked to indicate the extent they agreed with a range of statements exploring the level and nature of group activity using a five-point response option from “strongly disagree” to “strongly agree” with “neutral” in the middle. These options were later collapsed into three categories “strongly disagree/disagree”, “neutral” and “strongly agree/agree”.

The majority of survey respondents (69%) provided a positive assessment of the contribution their group was making to improved environmental conditions in their region. Landcare also appears to be an important part of local social structures for a substantial minority of respondents with 41% of respondents reporting that there was a strong connection or bond in their group. At the same time, over one third of respondents felt that their group had experienced difficulty completing projects and there were important issues that had not been addressed. Survey findings also highlighted problems in terms of limited participation with 61% of respondents reporting a large proportion of landholders in their area were not involved in Landcare and 57% indicating that there were only a few highly active members in their group. Only 4% of respondents indicated that their Landcare group had grown too big [Table 7].

**TABLE 7**  
**Level and nature of group activity**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement	n	Strongly disagree / Disagree	Neutral	Strongly agree / Agree	Mean
Our group is making a significant contribution to improved environmental conditions in the region	174	10%	21%	69%	3.68
A large proportion of landholders in our area are not involved in Landcare	173	16%	23%	61%	3.64
There are only a few highly active members in our group	172	19%	24%	57%	3.51
There is a strong social connection or bond in our group	173	16%	43%	41%	3.27
Our group has had trouble completing some projects	167	26%	37%	37%	3.13
Some issues I think are important are not addressed in our group	171	29%	40%	31%	3.07
Our Landcare group has grown too big	171	69%	27%	4%	2.13

### 6.3.5 Factors affecting participation

A series of survey questions asked respondents to indicate the extent they agreed with a range of statements exploring factors likely to affect their participation in Landcare. These questions used a five-point scale ranging from “strongly disagree” to “strongly agree” with “neutral” in the middle. These options were later collapsed into three categories “strongly disagree/disagree”, “neutral” and “strongly agree/agree”.

Survey data identified that many respondents felt that they were participating in Landcare at or near their capacity. Around two thirds of Landcare members said that they were devoting as much time as they could to Landcare and that business or personal commitments limited their involvement. However, most respondents appear to be attempting to sustain their present level of activity, with only 18% of respondents reporting that they had deliberately reduced their level of involvement. Nineteen per cent of respondents felt they were not making a significant contribution to the effectiveness of their Landcare group [Table 8]. These individuals had attended significantly fewer activities ( $r_s = 0.536, p < 0.001$ ).

The majority (57%) of respondents felt that the activities their group had undertaken were consistent with their own view about what needed to be done. Respondents also strongly endorsed the need for additional work. Only 23% indicated they had completed much of the on-ground work needed and only 17% said they had accomplished what they wanted from Landcare [Table 8].

Despite these findings, survey data highlighted concerns about the scale of investment Landcare groups were expected to make and the efficiency of their efforts. Over half of the respondents (61%) indicated that the government expected Landcare groups to do too much of the work of fixing the environment and 49% thought the outcomes from their involvement in Landcare were not sufficient for the time and effort that they devoted. In addition, 48% per cent of respondents thought that commodity prices were a more important influence to their long-term viability than land and water degradation [Table 8]. Clearly land and water degradation is only one aspect of long-term sustainability for Landcare members in the QMDB.

**TABLE 8**  
**Factors affecting participation**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement	n	Strongly disagree / Disagree	Neutral	Strongly agree / Agree	Mean
Business or personal issues limit my involvement in Landcare	176	11%	22%	67%	3.78
The government expects Landcare members to do too much of the work of fixing the environment	173	15%	24%	61%	3.65
I am devoting as much time to Landcare as I can	171	16%	19%	65%	3.65
The type of activities our group undertakes are consistent with my personal view about the type of activities our group should be doing	174	12%	31%	57%	3.53
Commodity prices will be a more important influence on my long-term viability than land and water degradation	170	22%	30%	48%	3.51
I make a significant contribution to the effectiveness of our Landcare group	172	19%	42%	39%	3.20
Much of the on-ground work needed on my property has been finished	170	52%	25%	23%	2.64
I have accomplished what I want from Landcare	172	48%	35%	17%	2.58
The outcomes from my involvement in Landcare are not sufficient for the time and effort I put in	172	49%	42%	9%	2.56
I have deliberately reduced my involvement in Landcare activities	173	54%	28%	18%	2.51

## 6.4 Available resources

Respondents were asked to indicate the extent that they agreed with a range of statements exploring the adequacy and distribution of resources using a five point scale ranging from “strongly disagree” to “strongly agree” with “neutral” in the middle. As in previous sections these options were later collapsed into three categories “strongly disagree/disagree”, “neutral” and “strongly agree/agree”.

Survey data highlighted problems in terms of adequately resourcing Landcare groups and suggested that these inadequacies were limiting group capacity to address major issues. Forty-five per cent of respondents said that their group had insufficient resources to improve the management of major issues in their area. Both the level of financial and non-financial support were considered to be important factors limiting group capacity by a substantial proportion of respondents (57% for financial and 43% for non-financial). In addition, 47% of respondents did not feel that there was funding available to address land and water degradation on their property [Table 9].

While there was some concern about the level of resources available, the majority of respondents felt that resources were shared fairly amongst group members. Only 17% of respondents disagreed with this statement [Table 9].

**TABLE 9**  
**Availability of resources**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement	n	Strongly disagree / Disagree	Neutral	Strongly agree / Agree	Mean
The level of funding available limits the capacity of our group	168	16%	27%	57%	3.58
Resources are shared fairly amongst group members	171	17%	32%	51%	3.33
The level of external support other than funding limits the capacity of our group	167	23%	34%	43%	3.26
Our group has insufficient resources to improve the management of major issues in the area	174	27%	28%	45%	3.23
The scale of environmental issues is beyond the capacity of Landcare groups to address	173	43%	25%	32%	2.91
There is funding available to address land and water degradation issues on my property	169	47%	31%	22%	2.66

## 6.5 Group leadership

Respondents were asked a number of questions about the effectiveness of leaders in their group and leadership succession practices. These questions used a five-point scale of agreement from “strongly disagree” to “strongly agree” with “neutral” in the middle. Again these were later collapsed into three categories “strongly disagree/disagree”, “neutral” and “strongly agree/agree”.

Survey data provided a positive assessment of group leadership, with only 11% of respondents indicating that their group leaders had been ineffective over the last 12 months. Forty-seven per cent of respondents also thought there was usually someone willing to take on leadership positions. On the other hand, over a third of respondents thought that people had been in leadership positions for too long [Table 10].

There was a high degree of uncertainty regarding leadership succession with half the respondents providing a neutral response to the statement ‘our group has a policy to change leaders frequently’. Thus, it could be argued that even if there was a clear policy on leadership succession at least half the members were unaware of it. A small proportion (21%) of respondents felt that they were often pressured to take on a leadership position [Table 10].

Many respondents were also uncertain about the workload of leaders in their group, but over a quarter (28%) did not think their leaders were overworked (23% did) [Table 10].

**TABLE 10**  
**Group leadership**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement	n	Strongly disagree / Disagree	Neutral	Strongly agree / Agree	Mean
There is usually someone willing to take on leadership positions	171	23%	30%	47%	3.24
People have been in leadership positions for too long	172	27%	37%	36%	3.11
Our group has a policy to change leaders frequently	167	25%	50%	25%	2.98
Leaders in our group are overworked	172	28%	49%	23%	2.94
There is often pressure for me to take on a leadership role	173	47%	32%	21%	2.62
Over the past 12 months our group leaders have been ineffective	174	57%	32%	11%	2.41

## 6.6 Planning and monitoring

Respondents were asked to indicate the level of planning that they and their Landcare group had completed.

Survey data demonstrated that most Landcare members in the QMDB had been or were currently involved in property planning, with 41% saying they had completed a property plan and a further 34% with a plan in progress. However, it appears there is still a need to promote property planning with a quarter of respondents reporting no involvement [Table 11].

**TABLE 11**  
**Involvement in property planning**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Property planning	% of respondents
Completed	41%
In Progress	34%
None	25%

Just over half of respondents (51%) reported that their group had undertaken some level of strategic planning, with only 11% indicating no involvement. The high proportion of uncertainty amongst respondents (38%) is likely to reflect, at least in part, the finding that there was limited attention to documenting and disseminating the outcomes from planning processes. Only 18% of respondents said their group had completed planning and that the outcomes were documented and available to members. The remaining respondents indicated that planning was either in progress (18%), was completed but the outcomes were not documented (9%), or was completed and the outcomes were documented but not readily available (6%) [Table 12]. In other words of those who had completed group strategic planning 45% had not documented and disseminated the outcomes of the planning process.

Fifty-nine percent of survey respondents indicated that their group had at least begun to develop clear goals and objectives. Only 19% of respondents said their group had completed setting goals and objectives and that the outcomes were documented and available to members. The remaining respondents indicated that they were either in progress (16%), had completed but the outcomes were not documented (18%), or had completed and the outcomes were documented but not readily available (6%) [Table 13]. Of those who reported that their group

had completed setting goals and objectives, 60% said that the outcomes had not been documented and disseminated.

Again the high proportion of uncertainty (31%) is likely to mean that the proportion of respondents who indicated that their group had set clear goals and priorities but the outcomes were not documented and/or readily available to members is underestimated [Table 13].

Approximately half of respondents also felt that the group had set priorities about what needed to be done (53% agreed), and that their group had a clear idea of where they were headed (50% agreed) [Table 14].

**TABLE 12**  
**Involvement in strategic planning**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

<b>Strategic planning undertaken</b>	<b>% of respondents</b>
Unsure	38%
None	11%
In progress	18%
Completed but outcomes not documented	9%
Completed and outcomes documented but not readily available to members	6%
Completed and outcomes documented and readily available to members	18%

**TABLE 13**  
**Setting clear goals and objectives**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

<b>Clear goals and objectives</b>	<b>% of respondents</b>
Unsure	31%
None	10%
In progress	16%
Completed but outcomes not documented	18%
Completed and outcomes documented but not readily available to members	6%
Completed and outcomes documented and readily available to members	19%

The survey also asked respondents to indicate the extent they agreed with a range of statements exploring the direction of their Landcare group and how progress had been monitored. These questions used a five-point scale ranging from “strongly disagree” to “strongly agree” with “neutral” in the middle. These were later collapsed into three categories “strongly disagree/disagree”, “neutral” and “strongly agree/agree”.

It appears that for the most part, Landcare groups in the QMDB have been successful in achieving a balance between production and conservation issues, with 64% of respondents saying the group focus was well balanced between these issues.

The extent Landcare groups had implemented successful monitoring programs was less clear. Although only a small percentage of respondents said their group had not identified a clear way to evaluate the success of projects

(16%) and had not taken time to look back over achievements (15%), over 40% of respondents were unsure of the extent their group has addressed these aspects [Table 14].

**TABLE 14**  
**Group focus and direction**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement	n	Strongly disagree / Disagree	Neutral	Strongly agree / Agree	Mean
The focus of our group is well balanced between production and conservation issues	172	10%	26%	64%	3.63
Our group has developed priorities	174	10%	37%	53%	3.46
Our group has a clear idea of where it is headed	173	14%	36%	50%	3.42
Our group identifies a clear way of evaluating the success of projects we undertake	168	16%	43%	41%	3.26
In recent years we have taken time to look back over our achievements	169	15%	46%	39%	3.24

## 6.7 Decision making

Respondents were asked to comment about the nature of decision making in their Landcare group using a five-point scale of agreement. Responses to these questions were later collapsed into the following three categories “strongly disagree/disagree”, “neutral” and “strongly agree/agree”.

Overall results indicate a balanced and inclusive approach to decision making for most Landcare groups. Fifty-seven per cent of respondents said members in their group would compromise to reach decisions and 51% felt that they had sufficient input in deciding what their group did. Findings also suggested that respondents were generally satisfied with the level of autonomy their group had. Forty-nine per cent said that their group had most of the power in the decision making process [Table 15].

There was some indication of an occasional tendency for decision making to be dominated by a few individuals with 25% of respondents agreeing that this had occurred and 45% giving a neutral response. Certainly the earlier finding that most groups only had a few highly active members may explain why this could occur in a generally open and inclusive setting [Table 15].

**TABLE 15**  
**Nature of decision making**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement	n	Strongly disagree / Disagree	Neutral	Strongly agree / Agree	Mean
People in our group are willing to compromise to reach decisions acceptable to most members	172	9%	34%	57%	3.50
I think I have sufficient input in deciding what our group does	169	10%	39%	51%	3.44
Our group, rather than government departments, has most of the power in deciding what we do	169	23%	28%	49%	3.30
A few people dominate decision making in our group	172	30%	45%	25%	2.98

## 6.8 Group coordination

Respondents were asked if their group had access to a paid part-time or full-time coordinator or facilitator, and if so, for how long they had.

Eighty-eight per cent of respondents said their group currently had access to a coordinator or facilitator. The median length of time groups reported having had access to a coordinator or facilitator was four years.

## 6.9 Awareness of CMAs and LAs

The survey asked respondents to indicate the extent they were aware of the activities, organisation, and operation of their Catchment Management Association (CMA) and Landcare Association (LA) (where applicable). Respondents were asked to give two ratings to a range of topics, one for the CMA and another for the LA. These ratings used a five-point scale from “very poor” to “excellent” with “satisfactory” in the middle. These options were later collapsed into three groups “very poor/poor”, “satisfactory” and “very good/excellent”.

There was a clear trend for respondents to report a higher level of awareness about the activities, operation and organisation of LAs compared to CMAs. LAs received a higher rating across all aspects of awareness covered in the survey. Fewer than 20% of all respondents reported that their awareness of LAs was less than satisfactory across the range of topics. By contrast, approximately one third of respondents were unaware of how their CMA spent funds, established priorities, was organised and the services the CMA provided to Landcare groups/members [Table 16]. While it is reasonable to expect that awareness of CMAs would be lower than LAs, it is particularly important for Landcare participants to be aware of the services provided to Landcare groups/members by CMAs and how the CMAs establish priorities.

**TABLE 16**  
**Awareness of Catchment Management Associations and Landcare Associations**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Awareness of:	Sample	n	Very poor / Poor	Satisfactory	Very good / Excellent	Mean
Activities being undertaken	CMA	128	28%	44%	28%	2.98
	LA	126	13%	40%	47%	3.41
Information on environmental conditions and their management	CMA	125	25%	50%	25%	2.94
	LA	126	16%	52%	32%	3.16
Services provided to Landcare groups/members	CMA	129	31%	39%	29%	2.91
	LA	126	16%	32%	52%	3.41
How they are organised	CMA	129	32%	44%	24%	2.85
	LA	128	15%	55%	30%	3.19
How funds are spent	CMA	128	35%	44%	21%	2.77
	LA	127	18%	45%	37%	3.20
How priorities are established	CMA	127	34%	48%	18%	2.72
	LA	127	17%	50%	33%	3.10

The survey also asked respondents to indicate how valuable they thought their CMA and LA had been across a range of topics. Respondents were asked to indicate the extent they agreed with a range of statements for both their CMA and LA using a five-point scale ranging from “strongly agree” to “strongly disagree” with a “neutral” in the middle. As in previous sections these were later collapsed into three categories “strongly disagree/disagree”, “neutral” and “strongly agree/agree”.

The majority of survey respondents indicated that both their CMA and LA provided a wide range of valuable services. As with awareness there was a trend for the various value topics to be rated more highly for LAs compared to CMAs. However, with the exception of one topic, less than a quarter of all respondents provided a negative evaluation of CMAs or LAs. The most highly rated topic for both CMAs and LAs was that they helped local people access government funds (63% agreed for CMA and 81% agreed for LA). Although respondents generally provided a very positive assessment of the value of CMAs and LAs, there was a minority of respondents who felt that these organisations only represented another layer of bureaucracy (36% agreed for CMA and 25% agreed for LA) [Table 17].

**TABLE 17**  
**The value of Catchment Management Associations and Landcare Associations**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Value	Sample	n	Strongly disagree/ Disagree	Neutral	Strongly agree/ Agree	Mean
Helped local people access government funds	CMA	126	12%	25%	63%	3.66
	LA	128	3%	16%	81%	4.02
Provided a forum to discuss Landcare issues	CMA	127	13%	23%	64%	3.57
	LA	130	3%	22%	75%	3.88
Provided access to important information	CMA	126	11%	29%	60%	3.53
	LA	127	6%	22%	72%	3.78
Helped local groups work together on issues	CMA	128	14%	30%	56%	3.46
	LA	128	4%	28%	68%	3.80
Helped local people understand regional issues	CMA	126	16%	33%	51%	3.38
	LA	126	6%	30%	64%	3.66
Increased the capacity of local people to shape decision making	CMA	125	20%	41%	39%	3.22
	LA	127	9%	27%	64%	3.64
Organised Landcare related training activities	CMA	125	20%	49%	31%	3.10
	LA	127	8%	32%	60%	3.61
Really only another layer of bureaucracy	CMA	127	28%	36%	36%	3.09
	LA	126	39%	36%	25%	2.85
Diverted efforts from on-ground work	CMA	120	22%	61%	17%	2.93
	LA	119	29%	55%	16%	2.84

## **6.10 Group outcomes**

### **6.10.1 Introduction**

Respondents were asked to assess the extent their group had achieved a range of outcomes that might be expected from Landcare group activity. Topics included broad participation, awareness, knowledge and skills, access to resources, social cohesion and change in resource condition (Curtis and De Lacy 1996; Curtis *et al.* 200; Selin *et al.* 2000).

This question consisted of 16 statements with a five-point response option ranging from 1 “no success” to 5 “much success” with 3 “some success” in the middle.

Statements measured five different types of possible group outcomes referred to as:

1. cohesion (enhancing group cohesion);
2. linkages (building linkages with other stakeholders);
3. knowledge (improving the knowledge of group members);
4. influence (influencing stakeholders/decision making); and
5. on-ground results [Table 18].

These five factors were identified using principal components factor analysis. This analysis showed a clear distinction between each type of outcome with individual items having an item-to-scale correlation above 0.3. The group outcomes model was validated using confirmatory factor analysis where fit statistics indicated the model fitted the data well.

The reliability of the group outcomes model was measured using Cronbach Alpha estimates. De Vaus (1991) concluded that an Alpha value above 0.70 indicated that a scale was reliable (ie. able to produce consistent results). The Alpha value for each type of outcome was as follows: cohesion = 0.71; linkages = 0.79; influence = 0.74; on-ground results 0.86; and knowledge = 0.59. The knowledge factor was the only type of outcome to have an Alpha below the recommended 0.70 level. This is likely to be a result of the factor containing only two items. Future attempts to use this scale should include some additional questions about knowledge outcomes.

Confirmatory factor analysis also suggested that each type of outcome could be combined to form an overall outcomes index. While this analysis also suggested that there was some variation in the importance of each type of outcome with respect to measuring overall outcomes, this variation was minimal and there is no theoretical justification for attributing greater importance to any one type of outcome. Thus, each type of outcome was given equal weighting when calculating the overall outcomes index [Table 19].

The scores for each type of outcome and the overall outcomes index were converted back to the original five-point scale to aid interpretation [Table 18].

### **6.10.2 Findings**

Contributing to improved land management practices was the highest rated group outcome with a mean score of 3.56. Increased understanding of processes leading to land and water degradation amongst Landcare members (mean score 3.41) and brought more resources into the area (mean score 3.37) were the next highest rated group outcomes. Topics where respondents reported least success were influencing natural resource management decision making (mean score 2.57), increasing the awareness of issues amongst non-Landcare members (mean score 2.59), and increasing political support for efforts to address issues (mean score 2.73) [Table 18].

## Landcare participation and outcomes in the Queensland Murray-Darling Basin

Respondents' scores across the five indices showed on-ground results was the area considered to be most successful. The mean score for on-ground results was 3.39 indicating that on average respondents felt that they had more than some success in achieving on-ground results in their area. The mean score on the on-ground outcome index was significantly higher than all other outcome indices with the exception of the knowledge index ( $t_{\text{cohesion}} = 4.191, p < 0.001$ ;  $t_{\text{linkages}} = 4.753, p < 0.001$ ;  $t_{\text{influence}} = 11.319, p < 0.001$ ;  $t_{\text{knowledge}} = 1.190, p = 0.236$ ). Knowledge amongst Landcare members was the second most successful area (mean score of 3.31) suggesting that on average respondents felt that they had more than some success in achieving this outcome. Influencing other stakeholders was the area where respondents reported the least success with a mean score of 2.73. Scores on the influence index were significantly lower than all other indices ( $t_{\text{cohesion}} = -8.197, p < 0.001$ ;  $t_{\text{linkages}} = -7.804, p < 0.001$ ;  $t_{\text{on-ground}} = -4.753, p < 0.001$ ;  $t_{\text{knowledge}} = -11.675, p < 0.001$ ) [Table 19].

The mean score on the overall outcomes index was 3.14 indicating most respondents thought their group had achieved moderate success across the range of outcomes assessed in the survey.

Section 6.14 outlines the relationship between burnout and scores on the outcome indices.

**TABLE 18**  
**Group outcomes**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Statement		n	No Success		Some success		Much success	Mean
			1	2	3	4	5	
Cohesion	Improved communication amongst Landcare group members	165	1%	6%	61%	28%	4%	3.28
	Brought people together and enhanced the sense of community	164	4%	16%	41%	33%	6%	3.23
	Attracted widespread participation in Landcare	163	5%	24%	47%	21%	2%	2.91
Linkages	Improved communication between Landcare members and other NRM stakeholders	163	2%	8%	50%	37%	3%	3.33
	Contributed to a better understanding of the different attitudes held by various stakeholders about NRM	155	3%	14%	61%	21%	1%	3.05
	Increased the level of trust among NRM stakeholders	156	4%	18%	51%	26%	1%	3.02
Knowledge	Increased understanding of processes leading to land and water degradation amongst Landcare members	164	0%	11%	44%	38%	7%	3.41
	Increased awareness of NRM issues amongst Landcare members	164	1%	17%	40%	40%	2%	3.24
Influence	Awareness of Landcare groups objectives and plans amongst local community	164	4%	17%	51%	27%	1%	3.04
	Increased political support for efforts to address NRM issues	160	8%	28%	47%	16%	1%	2.73
	Increased awareness of NRM issues amongst non-Landcare members in the local area	160	12%	29%	49%	9%	1%	2.59
	Influenced NRM decision making	159	13%	28%	48%	11%	0%	2.57
On-ground results	Contributed to improved land management practices	165	0%	10%	31%	52%	7%	3.56
	Brought more resources into our area to address land and water degradation	164	3%	14%	35%	38%	10%	3.37
	Completed onground work	162	1%	16%	37%	40%	6%	3.35
	Contributed to improvement in the condition of land and water resources	165	4%	9%	43%	37%	7%	3.35
	Contributed to the development of more viable agricultural systems	163	1%	20%	41%	33%	5%	3.20

**TABLE 19**  
**Indices of group outcomes**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Type of outcome	n	Mean
On-ground results	161	3.39
Knowledge	163	3.31
Linkages	152	3.13
Cohesion	162	3.13
Influence	155	2.73
<i>Overall index</i>	<i>147</i>	<i>3.14</i>

### 6.11 Differences between Landcare leaders and members

In addition to activity levels [refer to section 6.3.1] there were a number of significant differences between Landcare group leaders and members in the QMDB. Landcare group leaders were significantly more confident about their contribution to group effectiveness and their input in decision making. Group leaders were also more likely than members to report resources were shared fairly amongst their group. At the same time, Landcare group leaders raised greater concern about leadership succession with half of these respondents saying they felt pressured to take on a leadership role and only a third reporting that there was usually someone willing to take on group leadership positions. Landcare group leaders were significantly more likely than members to report that leaders in their group were over worked [Table 20].

**TABLE 20**  
**Differences between Landcare group leaders and members**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186; Leader sample N=80)**

Topic	n	Leaders	n	Members	Test	df	Sig.
I make a significant contribution to the effectiveness of our Landcare group	172	78% agreed	78	38% agreed	$\chi^2=36.529$	4	p<0.001
There is often pressure for me to take on a leadership role	173	50% agreed	76	21% agreed	$\chi^2=32.436$	4	p<0.001
Resources are shared fairly amongst group members	171	73% agreed	75	51% agreed	$\chi^2=17.032$	4	p=0.002
I think I have sufficient input in deciding what our group does	168	71% agreed	76	51% agreed	$\chi^2=14.695$	4	p=0.005
Leaders in our group are overworked	172	42% agreed	77	23% agreed	$\chi^2=11.546$	4	p=0.021
There is usually someone willing to take on leadership positions	171	34% agreed	76	47% agreed	$\chi^2=11.165$	4	p=0.025

## **6.12 Reliability and validity of the MBI**

Findings from the validity and reliability of the modified MBI used in this research are reported to demonstrate the appropriateness of the methods used. However, an understanding of these concepts is not required to interpret the results from the MBI [refer to section 6.13].

### **6.12.1 Reliability**

The term reliability refers to the ability of a scale to produce consistent results. Reliability of the modified MBI used in this study was assessed using Cronbach alpha estimates as a measure of internal consistency. This approach has been widely cited as an effective method for assessing the reliability of the MBI (Boles *et al.* 2000; Byrne 1993; Maslach *et al.* 1996).

All three sub-scales were found to be reliable with Alpha values above the 0.70 level recommended by de Vaus (1991). The Alpha values were 0.89 for the emotional exhaustion sub-scale, 0.81 for depersonalisation and 0.82 for personal accomplishment. Although the depersonalisation value of 0.81 indicates the scale is reliable analysis showed that removing item 22 would increase the alpha value.

### **6.12.2 Validity**

The term validity refers to the extent that the scale is measuring some part of a distinct concept (de Vaus 1991). There has been considerable attention in burnout literature to replicating the three-factor structure of burnout in a range of occupational settings (Boles *et al.* 2000; Bynre 1993). Drawing on this literature the factorial validity of the modified MBI used in this project was assessed by confirmatory factor analysis (CFA).

Results from CFA provided support for the three-factor structure of burnout as measured by the MBI. The three-factor structure was compared against a one-factor structure with all items loading on a single factor, and a two-factor structure where emotional exhaustion and depersonalisation were combined to form a single factor (personal accomplishment the second factor). In all instances results demonstrated that the three-factor structure was a superior fit to the data. However, fit measures indicate that the fit could be improved, with statistics below the generally accepted levels of 0.90 for GFI, AGFI, NNFI and CFI [Table 21]. Investigation of the modification indices, factor loadings and findings from the reliability analysis suggested that items 3, 4, 6 and 22 were not appropriate measures of their intended dimension of burnout and analysis was repeated without the inclusion of these variables. These modifications improved the fit of the model with most of the fit statistics indicating reasonable fit [Table 21]. To facilitate comparisons of MBI scores in this research with those obtained by other researchers (ie the demographic norms) items 3, 4, 6 and 22 were still included when calculating the MBI sub-scale scores.

The modified MBI also demonstrated convergent validity with sub-scale scores showing significant relationships in the expected direction with variables found to be linked to burnout in other research including, unclear goals and expectations, poor monitoring and feedback processes, and lack of reward (see later discussion of factors linked to burnout).

While these findings indicate issues with some specific items in the MBI, the consistency of these findings with other research suggest these are issues with the construction of the MBI as opposed to issues with the validity of applying the MBI to Landcare members and leaders.

**TABLE 21**  
**Confirmatory factor analysis of the modified MBI**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186)**

Model	Chi-square	DF*	GFI*	AGFI*	NNFI*	CFI*	RMSEA*
3 factor 22 item scale	625	205	0.75	0.69	0.76	0.78	0.108
3 factor 18 item scale	253	131	0.87	0.83	0.90	0.92	0.073
2 factor 22 item scale	691	208	0.73	0.67	0.72	0.75	0.115
2 factor 18 item scale	406	134	0.80	0.75	0.79	0.82	0.108
1 factor 22 item scale	1038	209	0.57	0.48	0.53	0.53	0.151
1 factor 18 item scale	738	135	0.61	0.51	0.54	0.59	0.160

Note: \*DF = degrees of freedom, \*GFI = goodness of fit index, \*AGFI = adjusted goodness of fit index, \*NNFI = non-normed fit index, \*CFI = comparative fit index, \*RMSEA = root mean square error of approximation.

### 6.13 Level of burnout

Two methods were used to provide a relative assessment of the level of burnout in QMDB Landcare participants.

1. The mean scores on each sub-scale of the modified MBI were compared with the demographic norm values (mean score for 11,000 human service employees) outlined in the MBI test manual.
2. Using the cut-off points provided in the MBI test manual respondents were assigned as high, medium or low burnout on each sub-scale.

Higher levels of burnout are indicated by:

- high emotional exhaustion, denoted by scores above the demographic norm or a high burnout assignment;
- high depersonalisation, denoted by scores above the demographic norm or a high burnout assignment; and
- reduced personal accomplishment, denoted by scores below the demographic norm or a high burnout assignment.

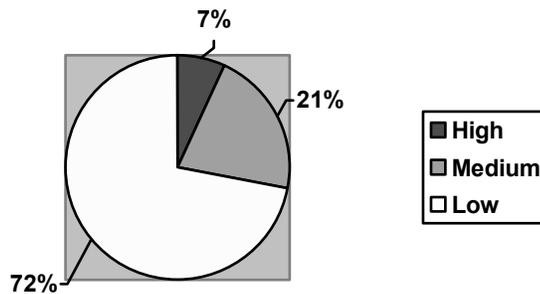
Note scores above the demographic norm (below for personal accomplishment) or high burnout classifications only provide a relative measure of burnout.

#### 6.13.1 Emotional exhaustion

The mean score on the emotional exhaustion sub-scale for respondents was 10.86 compared to the demographic norm of 20.99. Twenty-two per cent of respondents scored above the demographic norm [Table 22].

Using the high medium and low cut-off points, 72% of respondents were classified as having low burnout in terms of emotional exhaustion, 21% medium and 7% high [Figure 2].

**FIGURE 2**  
**Level of emotional exhaustion**

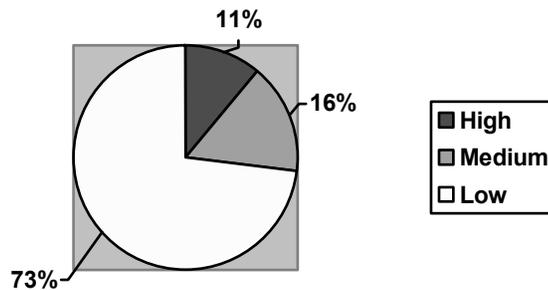


### 6.13.2 Depersonalisation

The mean score for respondents on the depersonalisation sub-scale was 4.3 compared to the demographic norm of 8.73. Twenty-two per cent of respondents reported levels of depersonalisation above the demographic norm [Table 22].

Using the high, medium and low cut-off points, 73% of respondents had low scores on depersonalisation, 16% medium and 11% high [Figure 3].

**FIGURE 3**  
**Level of depersonalisation**

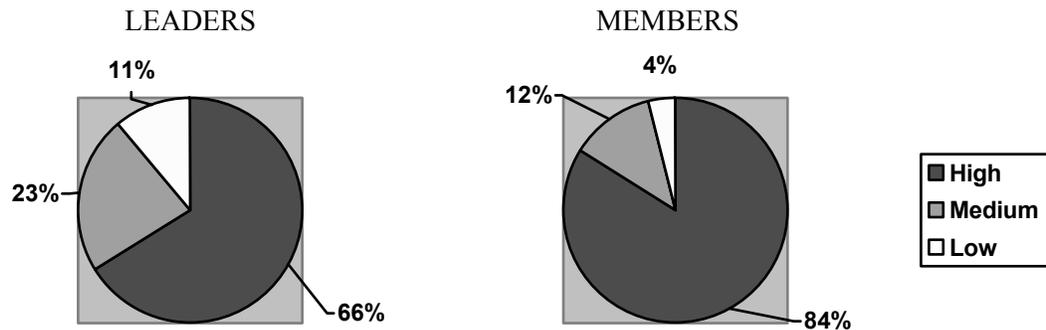


### 6.13.3 Personal accomplishment

Keeping in mind that low scores on personal accomplishment reflect high burnout 79% of leaders and 91% of members had scores below the demographic norm of 34.58 [Table 22]. Landcare group leaders in the QMDB had significantly lower burnout compared to members on the personal accomplishment sub-scale ( $\chi^2 = 18.566$ ,  $df = 1$ ,  $p < 0.001$ ).

Using the cut-off points from the MBI test manual, 11% of leaders and 4% of members had low burnout in terms of reduced personal accomplishment, 23% of leaders and 12% of members medium, and 66% of leaders and 84% of members high [Figure 4].

**FIGURE 4**  
**Level of burnout on personal accomplishment**



**TABLE 22**  
**Mean burnout scores**  
**Queensland Murray-Darling Basin 2001 (Member sample N=186; Leader sample N=80)**

Sample	n	Mean	Demographic norm	Above/below norm (high burnout)
<i>Emotional exhaustion</i>				
Members	160	10.86	20.99	22%
<i>Depersonalisation</i>				
Members	164	4.73	8.73	22%
<i>Personal accomplishment</i>				
Members	161	23.75	34.58	91%
Leaders	76	28.72		79%

#### 6.13.4 Summary

Reduced personal accomplishment was the most common aspect of burnout experienced by Landcare participants in the QMDB with the majority of both the leader and member samples scoring in the high burnout range. Emotional exhaustion and depersonalisation were far less prevalent with a comparatively small proportion of respondents classified in the high burnout range (7% for emotional exhaustion 11% for depersonalisation). However, with over a quarter of respondents in the moderate to high range it appears that emotional exhaustion and depersonalisation are likely to be an issue for at least a small sub-set of respondents.

## **6.14 Factors related to burnout**

Multiple regression with optimal scaling was used to identify significant relationships between burnout on the three MBI sub-scales and hypothesised antecedents. This approach provides a more powerful indication of a significant relationship than correlations and chi square tests as variables can be entered simultaneously and their importance evaluated against other variables included in the model. Entry of variables into the model was guided by our understanding of theory on burnout and our previous experience with burnout in Landcare as well as results from the correlation and chi square tests. In some instances, variables were not suitable for entry in the final regression model due to multicollinearity (the presence of highly correlated independent variables). Where these variables were considered to be important in understanding burnout, results from the correlation and chi-square tests have been presented.

### **6.14.1 Factors linked to emotional exhaustion**

Using multiple regression with optimal scaling higher burnout on the emotional exhaustion sub-scale was significantly associated with ( $F=16.331$ ,  $p < 0.001$ ) Landcare members who:

- said their group had problems completing projects ( $t = 3.230$ ,  $p = 0.002$ );
- thought the funding available to address land and water degradation on their property was inadequate ( $t = 2.617$ ,  $p = 0.010$ );
- were devoting as much time to Landcare as they felt they could ( $t = 5.905$ ,  $p < 0.001$ );
- thought the government expected Landcare members to do too much of the work of fixing land and water degradation ( $t = 2.030$ ,  $p = 0.044$ );
- said they had made a conscious decision to reduce their involvement in Landcare ( $t = 4.998$ ,  $p < 0.001$ );
- said the outcomes for their involvement in Landcare were not sufficient for the time and effort they committed ( $t = 3.594$ ,  $p < 0.001$ ); and
- thought the scale of environmental issues in their region was beyond the capacity of Landcare groups to address ( $t = 3.119$ ,  $p = 0.002$ ) [Figure 5].

These variables explained 45% of the variance in respondents' scores on the emotional exhaustion sub-scale ( $R^2 = 0.453$ ).

### **6.14.2 Depersonalisation**

Using multiple regression with optimal scaling higher burnout on the depersonalisation sub-scale was significantly associated with ( $F = 15.900$ ,  $p < 0.001$ ) Landcare members who:

- said they did not have sufficient input in deciding what their group did ( $t = 3.612$ ,  $p < 0.001$ );
- thought the government expected Landcare members to do too much of the work of fixing land and water degradation ( $t = 2.300$ ,  $p = 0.023$ );
- said that members in their group were not willing to compromise to reach decisions acceptable to most members ( $t = 3.597$ ,  $p < 0.001$ );
- said their group had problems completing projects ( $t = 2.317$ ,  $p = 0.022$ );
- said they had made a conscious decision to reduce their involvement in Landcare ( $t = 2.388$ ,  $p = 0.018$ ); and
- said the outcomes for their involvement in Landcare were not sufficient for the time and effort they committed ( $t = 3.394$ ,  $p = 0.001$ ) [Figure 5].

With an  $R^2$  value of 0.398 these variables explained approximately 40% of the variance in scores on the depersonalisation sub-scale.

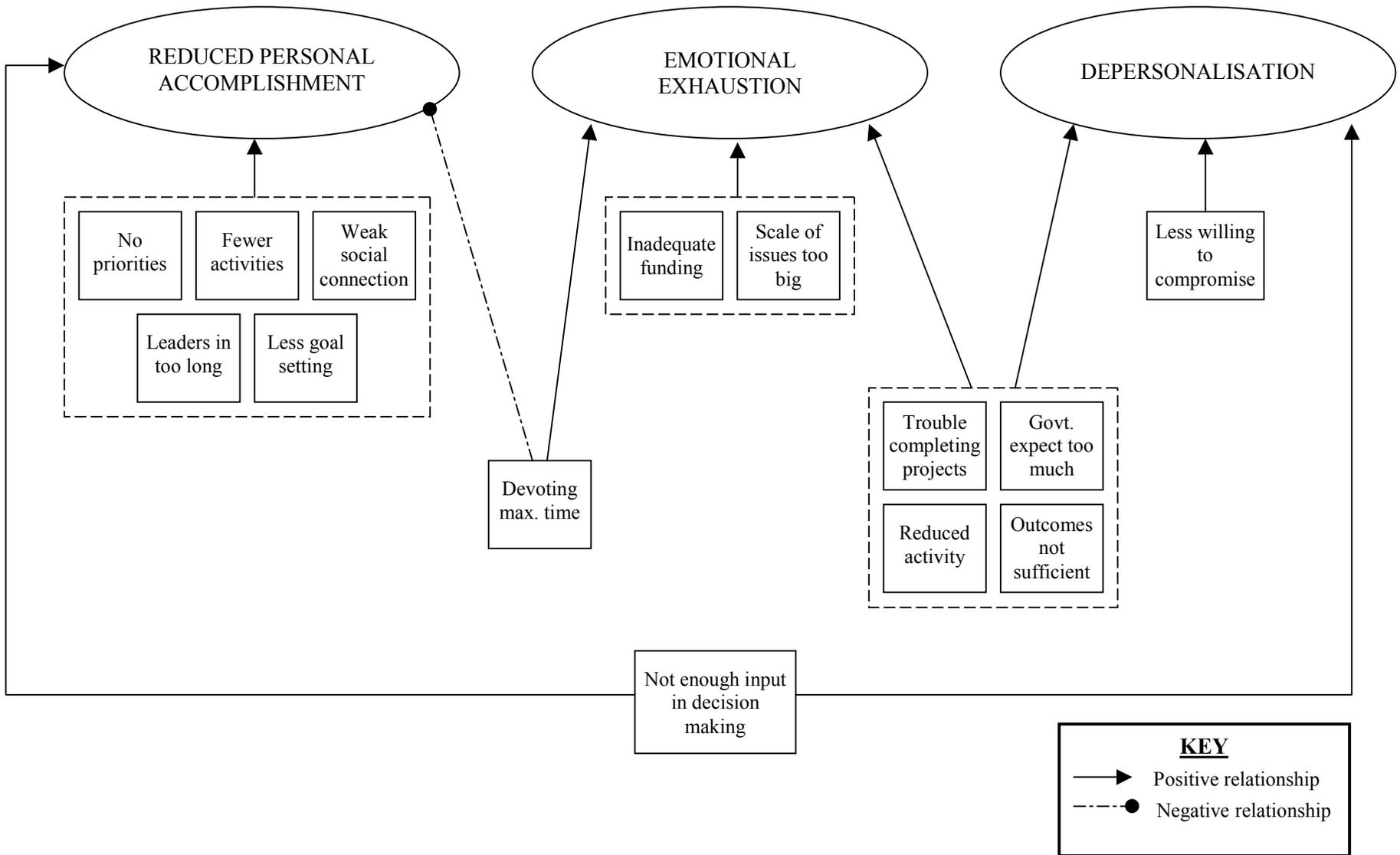
### **6.14.3 Factors linked to reduced personal accomplishment**

Using multiple regression with optimal scaling higher burnout in terms of a reduced sense of personal accomplishment was significantly associated with ( $F = 11.861, p < 0.001$ ) Landcare members who:

- reported that people in their group had been in leadership positions for too long ( $t = 2.455, p = 0.015$ );
- said they did not have sufficient input in deciding what their group did ( $t = 2.888, p = 0.005$ );
- were not devoting as much time to Landcare as they felt they could ( $t = 3.705, p < 0.001$ );
- said their group had not developed priorities ( $t = 3.808, p < 0.001$ );
- said their group had devoted less attention to the development, documentation and dissemination of clear goals and objectives ( $t = 3.165, p = 0.002$ );
- attended fewer Landcare group activities ( $t = 2.926, p = 0.004$ ); and
- felt that there was not a strong social connection or bond in their Landcare group ( $t = 2.809, p = 0.006$ ) [Figure 5].

These variables accounted for just over 40% of the variance in respondent scores on personal accomplishment for the member sample ( $R^2 = 0.405$ ). With the exception of the number of Landcare activities attended, all of these factors were also significantly linked to burnout on the personal accomplishment sub-scale in the leader sample and accounted for 40% of the variance ( $R^2 = 0.405$ ).

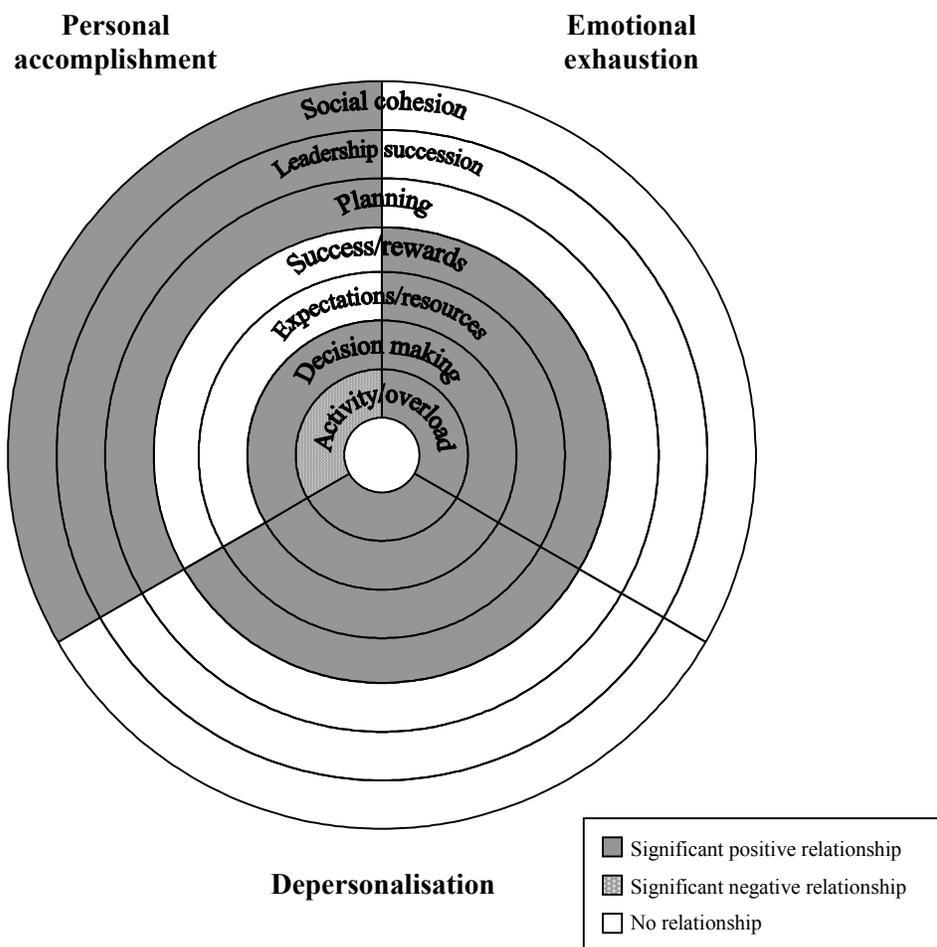
**FIGURE 5**  
**Factors related to burnout**



### 6.15 Discussion of factors linked to burnout

The following discussion of the 14 factors affecting burnout in this research is centred around seven main themes: participation; expectations and resources; success and reward; decision making; planning; leadership succession; and social cohesion. Figure 6 summarises the relationship of each theme to the three elements of burnout measured by the MBI.

**FIGURE 6**  
Themes related to burnout



### **6.15.1 Participation**

As shown in Figure 5, attendance at fewer Landcare group activities was significantly linked to reduced personal accomplishment. Similarly, a small minority of respondents said that they did not devote as much time as they could to Landcare and these individuals had significantly lower scores on the personal accomplishment sub-scale [Figure 5].

These findings appear to suggest that higher levels of activity would mitigate burnout. However, such a strategy fails to take into account the limited capacity of Landcare participants to volunteer additional time and resources. Nearly two thirds of the respondents said they were devoting as much time to Landcare as they could and these individuals reported significantly higher levels of emotional exhaustion [Figure 5]. In addition, higher levels of emotional exhaustion and depersonalisation were also significantly linked to respondents who said they had made a conscious decision to reduce their level of involvement.

Higher activity may provide a buffer against reduced personal accomplishment, but higher activity was also linked to higher burnout on the emotional exhaustion and depersonalisation sub-scales [Figure 5].

Concerns about the efficacy of this management option are also highlighted by the observation that many of the most active respondents also had high burnout in terms of a reduced sense of personal accomplishment.

### **6.15.2 Expectations and resources**

Both the expectations placed on Landcare groups and the resources available to meet expectations were important factors linked to burnout. Over half of all respondents indicated that the government expected Landcare groups to do too much of the work of addressing land and water degradation. These individuals had higher levels of burnout on both the emotional exhaustion and depersonalisation sub-scales [Figure 5]. At the same time, nearly half the respondents reported that the funding available was insufficient to address land and water degradation on their property, and approximately a third said that the scale of issues in their region were beyond the capacity of Landcare groups to address. Both of these factors were significantly linked with higher burnout on the emotional exhaustion sub-scale [Figure 5]. It appears that there is a considerable miss-match between expectations and resources for many Landcare groups.

Farber (2000) stated that burnout was traditionally conceptualised as a process that occurred as a result of highly motivated individuals being unable to meet their own expectations. However, Farber (2000) concluded that with changing social pressures burnout was now largely a result of individuals being unable to meet the demands placed on them by others. Landcare relies heavily on government funding, suggesting that both personal expectations and those imposed by government are likely to be important. In line with Farber's (2000) conclusion, it appears that the expectations of government are an important contributor to burnout, particularly in light of the limited resources reported by many respondents [refer to section 6.4].

### **6.15.3 Success and rewards**

Literature on burnout emphasises the importance of individuals achieving a sense of success and contingent reward for their effort (Maslach and Leiter 1997; Pines and Aronson 1988). The extent that this occurs in an organisation is largely dependent on the development of clear, realistic, and observable goals and expectations (Bailey *et al.* 1989).

There was some uncertainty amongst respondents regarding the level of success and the rewards that they had achieved through their involvement in Landcare. More than one third of the respondents said that their group had problems completing projects and nearly half were uncertain about the extent the outcomes from their involvement were sufficient for the time and effort they committed to Landcare. As shown in Figure 5 both the

perception of limited success in completing projects and inadequate reward for one's involvement were significantly linked to higher levels of burnout on the emotional exhaustion and depersonalisation sub-scales.

#### **6.15.4 Decision making**

The inability of individuals to exercise power in decision-making is widely cited as a contributing factor to burnout (Farber 1983; Maslach and Leiter 1997). When individuals have little decision making power they may feel a lack of control which can lead to limited ownership of outcomes and ultimately to decreased motivation and disengagement (Maslach and Leiter 1997). Individuals who perceive that there is an inequitable distribution of power may also become resentful and cynical of those perceived to hold greater power.

Findings reported earlier indicated that the decision-making processes of Landcare groups in the QMDB were generally open and inclusive. However, a small minority of respondents said they did not have enough input in decision making. Over a third of respondents were also uncertain about the extent of their contribution to decision making. There was a significant correlation between higher levels of activity and greater satisfaction with input in decision-making ( $r_s = 0.407$ ,  $p < 0.001$ ).

As indicated in Figure 5, respondents who were less satisfied with their input in decision making had significantly higher burnout on the emotional exhaustion and personal accomplishment sub-scales. Higher levels of depersonalisation were also associated with individuals who reported that members in their group were not willing to compromise to reach decisions acceptable to most members [Figure 5].

#### **6.15.5 Planning**

Where the goals or objectives of a group or organisation are unclear it is difficult for individuals to know what is expected of them, what they are working toward, modifications that may be necessary to achieve goals and when goals are achieved (Greensing 1991; Pines and Aronson 1988). Without this feedback it becomes difficult to judge success and develop a sense of accomplishment (Maslach 1982). Intermediate indicators of success are also crucial in mitigating burnout (Cherniss 1980a; Maslach 1982).

Survey data indicated that most QMDB Landcare participants felt that their group had developed clear goals, objectives and priorities. Only a small proportion of respondents indicated that their group had no involvement in priority setting or developing clear goals and objectives. However there was a high degree of uncertainty about the extent groups had completed these aspects of planning. The earlier finding of limited attention to the documentation and dissemination of planning outcomes appears likely to explain this level of uncertainty.

Those who reported their group had not developed priorities or had made less progress toward the development, documentation and dissemination of clear goals and objectives had higher burnout in terms of reduced personal accomplishment [Figure 5]. Lower attention to the development of a group strategic plan was also linked to higher burnout on the personal accomplishment sub-scale under bivariate analysis.

#### **6.15.6 Leadership succession**

When group leaders occupy leadership positions for long periods they may lose their enthusiasm or come to exercise too much power. Extended terms of leadership may also stifle the leadership aspirations of others, constrain the scope of group activities, and limit the attractiveness of the group for potential members (Curtis *et al.* 2000). In turn, these outcomes of extended leadership may contribute to a reduced sense of responsibility and control amongst other group members (Curtis *et al.* 2000).

Leadership succession plans may be an effective strategy to help minimise the impact of these issues where there are willing candidates to accept leadership positions. Leadership succession plans should also avoid rapid turnover of leadership positions (Curtis and Van Nouhuys 1999).

Over a third of the respondents said that people had been in leadership positions for too long. This perception was significantly linked with higher burnout on the personal accomplishment sub-scale [Figure 5].

### **6.15.7 Social cohesion**

Pines and Aronson (1988) concluded that social cohesion provides an important buffer against burnout. Through social interaction individuals are able to discuss issues, give and receive advice, build cohesion, vent frustration and provide feedback and encouragement (Pines and Aronson 1988). Where this support is not available burnout is almost certain to occur when stressful conditions arise (Cherniss 1980a; Maslach 1982; Pines and Aronson 1988).

Although the importance of social interaction and cohesion has been extensively documented in literature on volunteers (Brudney 1990; Pearce 1993) it is often overlooked as an important aspect of Landcare (Curtis and Van Nouhuys 1999).

In the QMDB social interaction was rated as the second least important reason (of those included in the survey) motivating respondents to join Landcare. In turn, less than half of the respondents agreed that their Landcare group had a strong social connection or bond. The perceived importance (or lack of) attributed to social interaction appears to explain, at least partly, lower levels of social cohesion.

There was a significant correlation between lower importance of social interaction and the perception that groups did not have a strong bond ( $r_s = 0.230$ ,  $p = 0.001$ ). Respondents who said their group had a strong social connection or bond had significantly lower burnout in terms of reduced personal accomplishment [Figure 5].

The results of this research in the QMDB appear to affirm the importance of social interaction.

## **6.16 The effect of burnout on group outcomes**

Non-parametric correlation analysis was undertaken using each of the five group outcome indices (cohesion, knowledge, linkages, on-ground results, and influence) and the overall outcomes index with the three burnout sub-scales. In these analyses group outcomes were treated as the dependent variables, that is group outcomes were considered to be dependent on the level of burnout. Caution needs to be used in interpreting relationships between burnout and respondent's self-assessment of group outcomes, particularly on the personal accomplishment sub-scale. It is possible that higher burnout on the personal accomplishment sub-scale (ie. lower perceptions of performance or significance) would contribute to a more negative assessment of group outcomes. While it not possible to identify causality from the results of correlation analysis, there is strong theoretical justification for assuming group outcomes or performance is dependent on burnout (Golembiewski *et al.* 1998; Maslach and Leiter 1997). Future research exploring the link between group outcomes and burnout should include an independent assessment of group outcomes.

One approach would involve a comparison of respondents' assessment of group outcomes with assessments provided by experts such as Landcare coordinators. Another approach would be to compare respondents assessments with those obtained using the index of group activity developed by Curtis (Curtis and De Lacy 1995). In this approach, group leaders or coordinators would provide data about the extent of work across a range of community education and on-ground activities. Both of these methods would require the calculation of a mean score on each sub-scale of the MBI for each Landcare group. These mean scores could then be ranked and compared to the independent assessments. It was not possible to conduct these analyses in the QMDB, as Landcare membership lists held by the DNRM were collated at the regional level and did not include membership lists for each Landcare group. Given the project budget and time frame it was not possible to collect this information across the entire QMDB. These methods will be explored in the study undertaken in the Lachlan region where this information was available.

There was no significant relationship between burnout on the emotional exhaustion sub-scale and any of the group outcome indices.

In contrast, higher levels of depersonalisation were significantly associated with lower scores (poorer performance) on the following indices:

- cohesion ( $r_s = -0.209$ ,  $p = 0.010$ );
- knowledge ( $r_s = -0.242$ ,  $p = 0.003$ );
- on-ground results ( $r_s = -0.209$ ,  $p = 0.010$ ); and
- overall outcomes index ( $r_s = -0.256$ ,  $p = 0.002$ ).

Depersonalisation was not significantly related to the influence or linkages outcomes.

Lower personal accomplishment (higher burnout) was significantly associated with lower scores on the following indices:

- cohesion ( $r_s = 0.249$ ,  $p = 0.002$ );
- knowledge ( $r_s = 0.244$ ,  $p = 0.003$ );
- on-ground results ( $r_s = 0.255$ ,  $p = 0.002$ );
- linkages ( $r_s = 0.189$ ,  $p = 0.022$ ); and
- overall outcomes index ( $r_s = 0.271$ ,  $p = 0.001$ ).

The only type of outcome explored in this research that was not significantly linked with the personal accomplishment sub-scale was the influence index.

In summary, burnout on the depersonalisation and personal accomplishment sub-scales appear to be important contributors to lower ratings across a range of group outcomes and the overall group outcomes index. To the extent that burnout persists or progresses, the capacity of Landcare groups in the QMDB to contribute to natural resource management outcomes appears likely to be undermined.

## **7.0 RECOMMENDATIONS**

With the majority of respondents experiencing high levels of burnout on the personal accomplishment sub-scale and over a quarter in the moderate to high range on emotional exhaustion and depersonalisation, efforts to maintain and build Landcare groups as effective organisations in the QMDB must consider methods of mitigating burnout. Survey findings also suggest that managing burnout will be an important aspect affecting the capacity of Landcare groups to contribute to a range of natural resource management outcomes.

In considering the implications of this research to the management of burnout in Landcare leaders and members in the QMDB, the authors have identified two main organisational levels where management interventions should be targeted. These are referred to as the broad policy level and group management level. The broad policy level refers to management strategies that are beyond the capacity of Landcare groups to implement without changes in the broader environment. On the other hand, the group management level refers to strategies that could be adopted by Landcare groups with little or no external assistance, provided groups have access to trained support staff.

### **7.1 Broad policy level**

Landcare evolved in response to a realisation of the complex long-term environmental issues facing much of rural Australia and the need to engage and educate local communities in improved natural resource management. Since the introduction of the NHT, the emphasis has been on Landcare contributing to improved environmental conditions. Increasingly, outcomes are being evaluated against this criterion.

Campbell (1997) believed Landcare groups should not be expected to reverse environmental degradation. Such an expectation fails to consider the complexity and scale of issues groups are attempting to address, time frames required to see on-ground results, available resources and lack of certainty about current recommended practices.

Realistic expectations of Landcare groups need to be articulated. Curtis and Lockwood (2000) suggested that the most important roles for Landcare groups were to:

- mobilise participation;
- initiate and support learning;
- pull down resources to support local efforts; and
- undertake on-ground work to the extent that time and resources are available.

It appears that the expectations of government are an important contributor to burnout, particularly in light of the limited resources reported by many respondents. Organisational theory suggests that groups should work in conjunction with agency staff to develop indicators of success that are relevant, specific, achievable and observable (Bailey *et al.* 1989).

While the possible outcomes in any situation are clearly many and varied, the important point is that outcomes need to be considered at intermediate stages across a range of areas. Even where the ultimate goal may be to effect change in resource conditions, the development of intermediate indicators of success would demand a more detailed understanding of the requirements that would facilitate this change. For example, in order to effect a change in resource conditions groups may first need to reach some agreement with respect to the need for change, develop a shared goal or vision, identify and engage the relevant stakeholders, plan and then undertake action. To simply aim for changed conditions is jumping the gun, as any one of the elements mentioned above would represent a significant achievement in itself and would require substantial time and effort. Furthermore, to undertake on-ground work by itself without addressing alternative outcomes misses the point of participative approaches to natural resource management.

The capacity of Landcare groups to successfully engage in these processes will to a large degree depend on them having access to support staff skilled in both natural resource management and group facilitation. Recent research in the state of Queensland concluded that burnout was also a significant issue for Landcare support staff (Byron and Curtis In Press). Important factors contributing to burnout in Landcare support staff included:

- short-term positions;
- insufficient time and resources for support staff to provide the services expected of them;
- different expectations between employers and Landcare groups;
- limited performance feedback; and
- inadequate on-the-job training and skills development programs (Byron and Curtis In Press).

To the extent that burnout in Landcare support staff persists the ability of these individuals to help mitigate burnout in Landcare members will be limited.

## **7.2 Group management level implications**

### **7.2.1 Planning and monitoring**

Although respondents reported a high level of involvement in planning there was some concern about the adequacy of efforts to document and disseminate the outcomes from planning processes. Groups may need to be made aware of the importance of these aspects as part of the planning process. Greater resources should also be provided to assist groups document and disseminate results from all planning activities. These resources may include access (or greater access) to trained support staff, computer facilities and photocopying/printing services.

Group planning should also incorporate the development of intermediate indicators of success across a range of expected outcomes to help mitigate burnout (Maslach and Leiter 1997; Curtis *et al.* 2000).

Planning and monitoring programs need to be based on a realistic assessment of the capacity of Landcare groups to achieve desired outcomes and the time needed for results to be obvious.

### **7.2.2 Decision making**

While most respondents reported an open and inclusive approach to decision making, findings indicated a tendency for less active respondents to have less input in decision-making processes. Landcare members must be clear about how decisions are made in their group, feel their input is valued, and know how their opinion can be expressed. Establishing these processes should be included in the first stage of decision making.

Landcare groups need to explore methods of involving less active members in decision making. Decisions that incorporate the views of all or most members are most likely to be widely accepted and acknowledged by members. This method of decision making also promotes greater ownership of outcomes, higher engagement in the future and thus provides an important buffer against burnout.

There are several strategies that may be used to help achieve greater inclusion in decision making. Some simple ground rules to be used during group discussions may help prevent dominance by more vocal members. A critical aspect here however, is that the group agrees on the rules and they are adhered to.

### **7.2.3 Leadership succession**

It is important that Landcare groups identify a process for leadership succession (Curtis and Van Nouhuys 1999). Groups may want to identify a maximum term that individuals can occupy leadership positions. At the same time, it is also important not to turn leaders over too frequently as this may prevent the development of leadership skills or impede leader commitment to the achievement of outcomes. Three to four years seems like a reasonable length of leadership. Strategies for leadership succession also need to consider the possibility that at times, there may be no one willing to take on leadership roles. In these circumstances it is important that individuals are not unduly pressured into leadership positions. Rather, group leadership positions could be split into smaller less demanding roles.

### **7.2.4 Social cohesion**

There needs to be stronger affirmation of the importance of social interaction in maintaining individuals' interest and engagement in Landcare. One of the aspects that distinguishes Landcare from other voluntary organisations is the highly utilitarian motivation for involvement (Curtis and Van Nouhuys 1999).

Without strong social structures, efforts to improve natural resource management on privately owned property, across the regional or sub-catchment scale, are likely to achieve limited success. While the importance of social interaction is overlooked, building or maintaining social structures is likely to be difficult. There needs to be greater opportunities for Landcare members to be involved in activities that are largely or entirely intended to build social cohesion. With many rural areas in Australia experiencing community decline (Lawrence 1992), the role of Landcare in providing a social support system may also have important implications beyond burnout.

## 8.0 BACKGROUND INFORMATION

### 8.1 Membership of other volunteer groups

Member of other volunteer groups	n	%	Mean groups
Yes	176	82%	3
No		18%	

### 8.2 Age

Respondents age in years							
n	21-30	31-40	41-50	51-60	61-70	Over 70	Median
178	4%	21%	23%	28%	17%	7%	51 years

### 8.3 Gender

Gender	n	%
Male	179	76%
Female		24%

### 8.4 Education

Years of post primary education	% of respondents
0-6 years	63%
7-10 years	29%
Over 10 years	8%
Median	5 years

### 8.5 Respondents workload

On-property work	n	%	Median hrs per week
Yes	173	97%	50 hrs
No		3%	

Off-property work	n	%	Median hrs per week
Yes	148	57%	20 hrs
No		43%	

## 8.6 Presence of a spouse or partner

Spouse or partner	n	%
Yes	178	89%
No		11%

## 8.7 Workload for spouse or partner

Spouse or partner on-property work	n	%	Median hrs per week
Yes	155	88%	30 hrs
No		12%	

Spouse or partner off-property work	n	%	Median hrs per week
Yes	139	55%	24 hrs
No		45%	

## 8.8 Property size

Property size in Ha						
n	<10	10-40	41-150	151-300	>300	Median
170	2%	6%	15%	20%	57%	436

## 8.9 Farm finances limiting conservation work

Farm finances limit work on property	n	% of respondents
Yes	175	78%
No		19%
Unsure		3%

## 8.10 On property profitability

Pre tax on-property profit	n	% of respondents
Yes	169	48%
No		52%

Level of on-property profit							
n	Less than \$10K	\$10K-\$20K	\$21K-\$30K	\$31K-\$40K	\$41K-\$50K	More than \$50K	Median
89	43%	21%	12%	6%	6%	12%	\$25K

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## **10.0 APPENDIX 1**

### **General content of scale items in the modified Maslach Burnout Inventory (adapted from Maslach et al. 1996)**

#### **Emotional Exhaustion**

1. Emotionally drained from Landcare.
2. Used up after Landcare activities.
3. Fatigued by Landcare.
4. Working with Landcare members a strain.
5. Burned out from Landcare.
6. Frustrated by Landcare.
7. Working too hard on Landcare.
8. Working with Landcare members stressful.
9. At end of rope.

#### **Depersonalisation**

10. Treat Landcare members impersonally.
11. More callous.
12. Landcare hardening me emotionally.
13. Don't care about Landcare members.
14. Blamed for problems

#### **Personal Accomplishment**

15. Understand how Landcare members feel.
16. Deal with problems effectively.
17. Have a positive influence through Landcare.
18. Energetic.
19. Relaxed with Landcare members.
20. Exhilarated by working with Landcare members.
21. Accomplished a lot.
22. Deal with emotional issues calmly.

*Note: Full wording of original scale items appears in Maslach et al. (1996).*