VOICES OF THE VOLUNTEERS:
an exploration of the influences that volunteer experiences
have on the resilience and sustainability of
catchment groups in coastal Queensland

by

Margaret Jennifer Gooch
BSc (Environmental Studies, GU); Dip. Teach. (GU); MSc (Tropical Ecology, JCU)

Thesis submitted in the
Australian School of Environmental Studies,
Faculty of Environmental Sciences, Griffith University,
in fulfilment of the requirements of the degree of
Doctor of Philosophy

December 2003
THIS THESIS IS DEDICATED TO MY FOUR BOYS

Harry (standing on left); Rex (the dog); Dominic (being licked by Rex); & David (hiding)
ACKNOWLEDGEMENTS

As this thesis developed, it took on a life and personality of it’s own. It evolved through the help and support of a great many people, to whom I am deeply grateful. My supervisors Professor John Fien, Dr Jeni Warburton and Professor Roy Rickson, have all offered me help and support through the course of the research. I am particularly grateful to John, who encouraged me to apply for a scholarship with the Cooperative Research Centre (CRC) for Catchment Hydrology. Without this financial support, I would not have been able to study. John’s positive and cheerful help continued right to the end, when he was editing final drafts from his hospital bed!! I am also extremely grateful to Jeni. Her enthusiasm, good humour, eye for detail, and sheer hard work kept me on track.

I am indebted to all of the people who were interviewed as part of the study, and those who helped to validate results. I also wish to acknowledge my fellow PhD students for their friendship and interest, particularly Ellen Appleby, Dana Thomsen, Angela Wardell-Johnson, Clayton White and Peter Oliver. Many other people offered moral support and practical help including Dana Kelly, Don Alcock, Kerry Rosenthal, Stewart Lockie, Susan Rockloff, Theresa Leijten, Peter Howard, Anna Carr, James Whelan, Tim Smith, Christina Dwyer, Nicola Wright, Christine Bruce, Richard Dunlop, Lynne Bradshaw, Gary Bradshaw and John Lidstone. Special thanks go to Marg McVey and Bill Carter who each took time from their busy lives to read my final draft.

Finally, and most sincerely, I would like to thank my family - Dave, Harry and Dominic who provided a happy home and lots of fun to build up my resilience! Regular ‘get togethers’ with family, friends and neighbours also helped. Lots of gossip, wine and good food were consumed on back decks while children buzzed around, and afternoons slipped into evenings. These ‘get togethers’ certainly helped to maintain my enthusiasm for the concept of ‘social capital’.


DECLARATION

I declare that this work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

.................................................................

Margaret Gooch

ABSTRACT

Research was undertaken for this thesis to uncover characteristics of resilient volunteers and stewardship groups, both of which are a major element of the social mobilisation strategy used in Australia to manage natural resources. The ability of volunteers and groups to overcome problems, deal with new issues as they arise, and keep going under pressure is termed ‘resilience’. A ‘resilience management’ approach to natural resource management uses the idea of ‘adaptive change’ or panarchy to understand the development of resilience and thus, sustainability in human communities. According to this theory, sustainable communities are both changeable and stable, adapting to new situations as they arise.

The research approach used in the study is called ‘phenomenography’. It is an interpretive approach, based on the central assumption that there is variation in the ways in which people experience the same phenomenon. Phenomenography was used to see if lessons about resilience and sustainability could be learnt from catchment volunteers. All participants were ‘catchment volunteers’ working along the east coast of Queensland. They were drawn from a variety of organisations and programs including Landcare; Coastcare; Bushcare; Greening Australia; Waterwatch; tree-planting groups; and Integrated Catchment Management Committees. A total of 26 personal and group interviews involving 85 participants were conducted. Interviews comprised a series of semi-structured questions that were tape-recorded, then transcribed verbatim. Through a process of comparing and contrasting themes in the transcriptions, six conceptions emerged. These were: catchment volunteering was experienced as seeking and maintaining balance; developing/ maintaining an identity; empowerment; learning; networking; and sustainable.

Analysis of these themes was used to develop a model of catchment volunteer experiences depicting relationships between conceptions (termed the ‘Outcome Space’ in phenomenography). In this study the Outcome Space emerged as a set of scales, signifying the importance of keeping a balanced perspective on volunteering - a balance between things such as personal goals and organisational goals; between
dedication to an unpaid vocation and family life; and between social benefits and environmental benefits.

From the Outcome Space, several conceptual and practical outcomes were developed. These included: a typology of participation based on volunteer experiences; a table describing forms of empowerment in catchment volunteering; a table listing drivers for catchment volunteers; an illustration of Holling and Gunderson’s adaptive cycle as it applies to stewardship groups; a table of factors that enhance the resilience and sustainability of stewardship groups; a model of the relationship between external pressures and resilient, sustainable stewardship groups; and guidelines for developing resilient sustainable stewardship groups. These outcomes contribute to an understanding of individual, group and community level responses to environmental issues; and how resilience can be developed in volunteers and stewardship groups and programs.
PUBLICATIONS ARISING FROM DOCTORAL RESEARCH

Refereed journal papers


Gooch, M. (accepted) Volunteering in catchment management groups: empowering the volunteer, *Australian Geographer*

Gooch, M. (accepted) Voices of the volunteers: conceptions of catchment volunteers in coastal Queensland, Australia, *Local Environment*


Other Publications/articles


Gooch, M. 2003. *Coastal volunteerism study* Article in *Flotsam and Jetsam: Coastal CRC News – October, 2003.* Flotsam and Jetsam is a monthly email newsletter of Australia’s Cooperative Research Centre for Coastal Zone, Estuary and Waterway Management.
PRESENTATIONS AT CONFERENCES, GUEST LECTURES

In 2002, I attended two international conferences to present aspects of my research:

*6th Invitational Research Development Seminar on Environmental and Health Education, Budapest, Hungary* June 2002: – I co-led whole day discussion about current research into concepts of social capital and social learning as they apply to education and sustainable development. I also delivered a powerpoint presentation with Dr Debbie Heck (Griffith University) entitled: Social Learning, social capital and sustainability.

*Australia and New Zealand Third Sector Research Conference* at UNITEC, Auckland, NZ. November 2002 I attended a half day workshop on Social Auditing, and delivered a powerpoint presentation entitled: Reflections on place, identity, and community action: observations, thoughts and experiences of catchment volunteers

During the time I have been a PhD student (July 2000- December 2003) I have presented a number of guest lectures and public talks including:

‘Why do some individuals remain active catchment volunteers?’ Guest speaker for *Seminar Series 2004* hosted by the Cooperative Research Centre for Coastal Zone, Estuary and Waterway Management (May 2004).

‘Building resilience in catchment volunteers’ Guest speaker at the Central Highlands Regional Resources Use Planning Co-operative (CHRRUP) forum and AGM in Emerald, Queensland (Thursday 13th November 2003).


‘Building resilience in stewardship groups’ Guest lecture for *Environment and Community* (ENVM2503) a second year course offered by School of Natural and Rural Systems Management, University of Queensland, and coordinated by Mr Ken Keith, University of Queensland (August, 2003)

‘Ecological identity and catchment management’, Guest speaker for *Reflect, Respect, React 2002 Symposium Series* hosted by Coastal CRC, Griffith Uni, CRC for Catchment Hydrology, Friends of The Earth and QCC held at GU EcoCentre (September 2002)

‘Volunteering – linking social capital, learning, and environmental care’ Discussion of thesis (to date) for *Student Seminar Series 2002* hosted by the Cooperative Research Centre for Coastal Zone, Estuary and Waterway Management (May 2002).
TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................................................................................ 2
DECLARATION .................................................................................................................... 3
ABSTRACT ........................................................................................................................... 4
PUBLICATIONS ARISING FROM DOCTORAL RESEARCH .............................................. 6
CHAPTER ONE .................................................................................................................... 13

SETTING THE SCENE ........................................................................................................ 13
1.0 Background to the problem and rationale for research .............................................. 13
1.0.1 Research Questions .................................................................................................. 16
1.1 Significance of the study .............................................................................................. 17
1.2 Scope of literature review ............................................................................................ 19
1.3 Methodology and research approach .......................................................................... 21
1.4 Findings of the study ................................................................................................... 23

CHAPTER TWO .................................................................................................................. 24
VOLUNTEERS: AGENTS FOR A SUSTAINABLE FUTURE ............................................... 24
2.0 Introduction .................................................................................................................. 24
2.1 Our current trajectory .................................................................................................. 25
2.1.1 The need for change ............................................................................................... 25
2.1.2 Different views, different paths .............................................................................. 28
2.1.3 Standing at the crossroads ...................................................................................... 31
2.2 Ecological literacy, a framework for a sustainable future ......................................... 33
2.3 Individuals, social groups and collective visions ......................................................... 36
2.4 Active citizens in contemporary communities ............................................................. 38
2.4.1 The decision to volunteer ....................................................................................... 41
2.4.2 Impacts of volunteering ......................................................................................... 42
2.5 Social learning .............................................................................................................. 45
2.6 Social capital ................................................................................................................ 49
2.6.1 Levels of social capital ........................................................................................... 53
2.7 Summary ...................................................................................................................... 57

CHAPTER THREE ............................................................................................................. 59
GOVERNANCE OF AUSTRALIA’S NATURAL RESOURCES ........................................... 59
3.0 Introduction .................................................................................................................. 59
3.1 Visions of sustainability in contemporary Australia .................................................... 59
3.2 Pathways towards sustainability in Australia ............................................................... 61
3.3 Social mobilisation in Australia .................................................................................... 62
3.3.1 The Future of the Landcare Movement in Australia ............................................... 67
CHAPTER FOUR.................................................................................................... 76

COMMUNITIES AND ECOSYSTEM MANAGEMENT ............................................ 76

4.0 Introduction.................................................................................................... 76

4.1 Ecosystems-based management ..................................................................... 78

4.2 Social processes and the adaptive cycle.......................................................... 84

4.2.1 Holling’s ‘adaptive cycle’................................................................................. 85

4.3 Conceptual model for the research approach................................................ 93

CHAPTER FIVE...................................................................................................... 97

THE RESEARCH APPROACH - PHENOMENOGRAPHY...................................... 97

5.0 Introduction.................................................................................................... 97

5.1 Methodology ................................................................................................... 98

5.2 Research approach ......................................................................................... 99

5.2.1 Rationale for the chosen approach ................................................................. 99

5.3 Phenomenography .......................................................................................... 99

5.3.1 Assumptions of phenomenography................................................................. 101

5.4 Research techniques ..................................................................................... 105

5.4.1 Chosen techniques – personal & group interviews .......................................... 106

5.5 Strengths and weaknesses of method and techniques.................................. 107

5.5.1 Role of the interviewer ................................................................................... 107

5.5.2 Pitfalls of phenomenographic interviews......................................................... 109

5.5.3 Intense nature of interviews ............................................................................ 111

5.5.4 Describing experiences................................................................................... 111

5.5.5 Confusion over categories of description and conceptions............................... 111

5.5.1 What is said versus why it is said .................................................................... 112

5.6 Steps in conducting the study....................................................................... 113

5.7 Quality of the Study...................................................................................... 122

5.8 Ethical issues................................................................................................. 123

5.9 Summary....................................................................................................... 124

OVERVIEW OF FINDINGS ................................................................................... 126

CHAPTER SIX ...................................................................................................... 129

BROOMSTICKS, BIODIVERSITY AND BALANCE.............................................. 129

6.0 Introduction.................................................................................................. 129

6.1 Balancing a range of perspectives ................................................................. 130

6.1.1 Summary: balancing a range of perspectives................................................ 133

6.2 Balancing group and personal goals/needs................................................... 133

6.2.1 Summary: balancing group and personal goals/needs.................................... 139

6.3 Balancing unpaid work, paid work and family life ........................................ 140

6.3.1 Summary: balancing unpaid work, paid work and family life....................... 142

6.4 Balance – the heart of civil society ............................................................... 142

CHAPTER SEVEN................................................................................................ 144
### IDENTITY - PEOPLE AND PLACES - PAST AND PRESENT

7.0 Introduction ................................. 144
7.1 Personal and social identity ................................................. 145
7.2 Ecological literacy and ecological identity ................................. 156
7.2.1 Summary: personal and social identity ................................. 156
7.3 Sense of place ............................................. 162
7.3.1 Summary: a sense of place ............................................. 168
7.4 Identity as a motivator for catchment volunteering ......................... 169

### CHAPTER EIGHT

LEARN AND PASS IT ON - LEARNING & NETWORKING FOR COMMUNITY CHANGE

8.0 Introduction ............................................. 171
8.1 Personal learning and networking experiences ................................ 172
8.1.1 Summary: personal learning and networking experiences ............... 175
8.2 Learning and networking experiences ............................................. 175
8.2.1 Summary: learning and networking experiences ............................. 181
8.3 Reaching the community through learning and networking .................. 181
8.3.1 Summary: reaching the community through learning and networking .... 189
8.4 The synergy of learning and networking ............................................. 189

### CHAPTER NINE

EMPOWERMENT - VOICES THROUGH VOLUNTEERING

9.0 Introduction ............................................. 191
9.1 Empowerment through personal and group transformations ................. 191
9.1.1 Summary: empowerment through personal & group transformation ....... 196
9.2 Empowerment through economic security ............................................. 196
9.2.1 Summary: empowerment through economic security .......................... 200
9.3 Empowerment through genuine partnerships that are transparent, inclusive, and based on negotiation ...................................................... 201
9.3.1 Summary: empowerment through genuine partnerships that are transparent, inclusive, and based on negotiation ...................................................... 213
9.4 Empowerment for sustainable action ............................................. 214

### CHAPTER TEN

VISIONS AND VOCATIONS - SUSTAINABLE VOLUNTEERING

10.0 Introduction ............................................. 216
10.1 Sustaining natural resources ......................................................... 217
10.2 Sustaining catchment groups and programs ............................................. 219
10.3 Sustaining catchment volunteering as ‘a way of life’ ............................... 224
10.4 Sustainable catchment volunteering ............................................. 227

### CHAPTER ELEVEN

CATCHMENT VOLUNTEERING IN THE BALANCE

11.0 Introduction ............................................. 229
11.1 What are the ways in which catchment volunteering is experienced in coastal communities in Queensland? .................................................. 230
11.1.1 Conception One: Seeking and maintaining balance ........................................ 230
11.1.2 Conception Two: Developing/maintaining an identity .................................. 232
11.1.3 Conceptions Three and Four: Learning and networking .............................. 233
11.1.4 Conception Five: Empowering ................................................................. 235
11.1.5 Conception Six: Sustainable ................................................................. 239
11.1.6 Final details – beyond the Outcome Space ............................................. 241
11.2 In what ways do the experiences of catchment volunteers influence resilience and sustainability in stewardship groups? .................................. 245
11.3 Final reflections ......................................................................................... 260
11.3.1 Strengths and weaknesses of the research ............................................. 262
11.3.2 Suggestions for further study ............................................................... 263

REFERENCES .................................................................................................. 266
LIST OF TABLES AND FIGURES

FIGURE 1.1: The four phases of the study ................................................................. 16
FIGURE 1.2 Major themes covered in the literature review................................. 19
FIGURE 1.3: Steps in conducting the study............................................................. 22
TABLE 2.1: Average annual land clearing rates across Australia........................ 26
FIGURE 2.1: Volunteering – the heart of civil society......................................... 40
FIGURE 2.2: Simultaneous building and using of social capital in interactions between individuals.................................................................................................................. 54
FIGURE 2.3: Levels of social capital........................................................................ 55
FIGURE 3.1 Percentage of population aware of landcare..................................... 60
FIGURE 3.2: The three elements of Landcare......................................................... 63
FIGURE 3.3: The Landcare Movement ................................................................. 65
FIGURE 4.1 Conceptual framework for analysis of linked social-ecological systems ... 79
FIGURE 4.2 Ecosystem services conceptual framework ........................................ 82
FIGURE 4.3: From exploitation to conservation ...................................................... 85
FIGURE 4.4: From conservation to release ............................................................. 86
FIGURE 4.5: From release to reorganisation ............................................................ 86
FIGURE 4.6: Social processes and the adaptive cycle .......................................... 89
FIGURE 4.7: Management practices of the backloop of the adaptive renewal cycle.... 92
FIGURE 4.8 Conceptual model for the research approach...................................... 95
TABLE 5.1 Location of interviews ........................................................................ 114
FIGURE 5.1: Questions used in interviews .............................................................. 115
TABLE 5.2: Identifying the transcriptions of interviews......................................... 118
TABLE ONE: OVERVIEW OF FINDINGS Conceptions and themes....................... 127
FIGURE 11.1: Seeking and maintaining balance.................................................... 230
FIGURE 11.2: Developing/maintaining an identity .............................................. 232
FIGURE 11.3: Learning and networking............................................................... 233
FIGURE 11.4: Empowering............................................................................... 235
TABLE 11.1: A typology of participation in catchment management..................... 237
TABLE 11.2: Forms of empowerment in catchment management......................... 238
FIGURE 11.5: Sustainable.................................................................................... 239
TABLE 11.3 Drivers for catchment volunteers...................................................... 243
FIGURE 11.6 Stewardship groups and the adaptive cycle ..................................... 246
TABLE 11.4 Enhancing the adaptive capacity of stewardship groups..................... 248
TABLE 11.5 Responses to external forces that may enhance resilience and sustainability in stewardship groups............................................................... 251
FIGURE 11.7 A buffer zone for resilient, sustainable stewardship groups............. 258
Chapter One

Setting the scene

Nature will be our most powerful teacher because it leaves us no alternative but to change. We have tried to build a society disconnected from its biocommunity and it cannot sustain itself. If we wish our species to survive, we must change (Milbrath, 1989, p37, 38).

1.0 Background to the problem and rationale for research

Australia’s long-term environmental problems are serious and persistent (Sobels, Curtis & Lockie, 2001). In many parts of the landscape, environmental damage is rapid and sometimes irreversible (Yencken & Wilkinson, 2000). Across the continent, creeks, rivers and other waterways divide the landscape, moving from high country to the coasts. These natural divisions are referred to as catchments or watersheds (Commonwealth of Australia, 2000). Whole catchments can suffer deleterious effects of poor land and water management upstream. This in turn, affects the well-being of local communities and natural systems. The Australian Catchment, River and Estuary Assessment 2002 undertaken by The National Land and Water Resources Audit is Australia's first comprehensive assessment of catchments, rivers and estuaries (Commonwealth of Australia, 2002a). The assessment found that over one third of Australia’s rivers were in poor condition, and over 85% were significantly modified due to human activities. Further, the assessment revealed that 80% of the reaches were affected by catchment disturbance.

Clearly, human activities affecting Australia’s catchments are not sustainable, that is, they compromise options for future generations (Kakabadse, 2000). Part of the problem is that historically there has been no consistent, coordinated approach to natural resource management, largely because Australia’s Constitution does not
directly cover issues of the environment (Ewing, 2000). As a result, there are no nationally agreed principles, priorities, targets or criteria (Commonwealth of Australia, 2000). There is no nationally shared vision for a sustainable future. By default, it was the landholder who traditionally shouldered the responsibility for catchment management (Ewing, 2000). Over the past fifteen years in Australia, a proliferation of voluntary organisations and programs has been created to encourage individuals and communities to actively contribute to natural resource management (Dovers, 2000). All are based on a model of community partnerships known as integrated catchment management (ICM), which is a long-term, holistic approach considering the social, economic and ecological dimensions of a catchment (Bellamy, Ross, Ewing & Meppem, 2002). Community members can become involved as volunteers in integrated catchment management through a variety of programs and stewardship groups such as Landcare, Coastcare, Bushcare and Waterwatch1. Stewardship implies responsibility for and concern about maintaining ecosystems for future generations (Commonwealth of Australia, 2002b). Lerner & Reid (1993, p108, in Donald, 1997, p484, p485) define environmental stewardship groups as

.... groups who participate in activities that contribute to the protection or restoration of a special area or feature of the natural environment by people who give their time and effort on a voluntary basis.

Such groups are involved in a wide range of activities to achieve specific goals. Activities include political activism, community education, media campaigns, fundraising, and on-ground activities including clean-up initiatives, ecological restoration, monitoring, and general care-taking. Goals are long-term, and volunteers often see themselves as being involved in projects for a long time (Donald, 1997). Stewardship groups continue to grow in number across Australia (Byron & Curtis, 2002), and the

---

1 For further information about these organisations and programs see the following websites:
majority of these groups are successful in accomplishing group goals (Curtis et al, 2000). Yet such groups and programs continue to operate under enormous difficulties, and many face an uncertain future (Curtis, van Nouhuys, Robinson, & Mackay 2000). One of the problems is a lack of staff trained in volunteer management. For example Curtis et al (2000) note that very few Landcare groups offer any induction course for volunteers or specifically focus on the needs of the volunteers. Certainly, for volunteers to have powerful positive effects on their local communities and on natural resource management, efforts are needed to attract and retain members to ensure the longevity of catchment programs and organisations (Foster-Fishman, Berkowitz, Lounsbury, Jacobson, & Allen 2001). An understanding of the social aspects of stewardship groups will help to harness the energy and resources of individuals and communities to enable long-term stewardship to become a reality (Lloyd, 2000).

The purpose of this research is to gain a rich understanding of the experiences of volunteers in catchment care groups, and to identify the ways in which these experiences positively influence stewardship groups. By analysing volunteer experiences certain questions may be answered, such as: What benefits accrue to the volunteers, their groups and to local natural resources? What motivates catchment volunteers? How might people be encouraged to join stewardship groups, and how might they be encouraged to keep coming back? What barriers do volunteers face? What actions do volunteers undertake to overcome problems and tackle new issues?

Overcoming problems and dealing successfully with new issues as they arise may be termed ‘resilience’. According to Marshall (2001) human resilience implies the ability to recover from stress and overcome problems. From an ecological perspective, the way in which ecosystems respond to changing environmental circumstances is also known as ‘resilience’ (Holling, 2000). In general, resilience includes an ability to thrive in dynamic circumstances; withstand stress; recover from shock; and to view change as an opportunity for innovation and renewal (Folke et al, 2002; Holling, 2000). Is there resilience in every person, and every social group? With respect to stewardship groups, do some recover from and overcome problems better than others? Are there mechanisms or processes that enhance resilience in stewardship groups? How might individuals and groups learn to access “natural common sense and capacity for health and well-being, for optimal outcomes, and positive behaviours?”
Hansen (1994) believes that an understanding of experiences is needed to understand actions. Thus, the research undertaken in this study focuses on the experiences of catchment volunteers.

1.0.1 Research Questions

The study began with two major research questions, to provide orientation for the methodology, including data collection techniques, analysis and synthesis of results.

**Question 1** *What are the ways in which catchment volunteering is experienced in coastal communities in Queensland?*

**Question 2** *In what ways do the experiences of catchment volunteers influence resilience and sustainability in stewardship groups?*

The research questions were answered through the literature review, data collection, and through meta-analysis (see Figure 1.1).

---

**FIGURE 1.1: The four phases of the study**
1.1 Significance of the study

As this study investigates the experiences of volunteers within groups and programs, it has implications for individuals, groups and programs concerned with catchment volunteering. It is significant for several reasons. The first flows from the lack of a comprehensive analysis of catchment volunteer experiences. However, as identified above, volunteers are central to redressing land and water degradation problems in Australia (see Byron & Curtis, 2002; Ewing, 2000; Cary & Webb, 2000; Williams & Sutherland, 2000). While governments develop policy related to natural resource management that relies on public participation (Bellamy et al, 2002; Lane, 2002; Cary & Webb, 2000), still little is known of what motivates people to become involved in stewardship groups and programs (Ross, Buchy & Proctor, 2002). Results of this study contribute to an understanding of volunteer motivations by identifying drivers for catchment volunteering along the coast of Queensland.

This study is also significant in gaining insight into why certain individuals in some groups and programs remain active volunteers. Currently there is a lack of research in this area, and Donald (1997) argues that much more research needs to be done to understand why some people remain active members of voluntary stewardship groups, while others do not. Donald (1997) assumes that social relationships among group members may play a significant role in determining the extent of active volunteerism within a group, yet little research has been undertaken in this area, especially with respect to stewardship groups. There is also a lack of information about the positive social impacts of volunteerism in local communities (Pearce, 1993), although there are many assumed benefits (eg Pearce, 2001; Heilpern, Wright & Tkachenko 2000). Results of this study also contribute to an understanding of these issues.

Related to the issue of successful NRM outcomes, Curtis et al (2000) note that numerous quantitative studies measuring the effectiveness of stewardship groups have been undertaken in the past, but few qualitative studies have been conducted. They conclude:

It is particularly important that qualitative research investigating factors affecting group effectiveness be undertaken to complement this research (Curtis et al, 2000, p365)
The qualitative research undertaken for this study reinforces many of the findings of Curtis et al (2000). For example, Curtis et al used quantitative methods to discover attributes of effective groups such as the importance of having clear goals, objectives and plans; facilitation by an outside agency; open communication between stakeholders; and access to adequate resources and a permanent, funded coordinator. The research undertaken in this study was able to address some of the concerns raised by Curtis et al (2000); Buchy & Race (2001); and Ross, Buchy & Proctor (2002) regarding the effectiveness of groups and their success in terms of NRM outcomes.

In addition, the thesis contributes to the growing literature surrounding the need for people, groups and communities to develop resilience – that is, to draw upon the ordinary human capacity that each of us has to be able to adapt to change in an age of uncertainty and rapidly changing circumstances (eg Deveson, 2003; Marshall, 2001; Folke et al, 2002; Berkes & Folke, 2002; Holling, Gunderson & Ludwig, 2002; Milbrath, 1989; Costanza, 2000). According to Folke et al (2002):

> Addressing how people respond to periods of change, how society reorganises following change, is the most neglected and the least understood aspect in conventional resource management and science (p19).

Berkes & Folke (2002) seek insights into how different community institutions respond to feedback from the environment, and how ecological knowledge might be used to develop resilience within institutions. Institutions may be thought of as socially constructed rules influencing human behaviour (Jeanrenaud, 1999; Berkes & Folke, 2002). Descriptions of catchment volunteer experiences within stewardship groups contribute to an understanding of how some of the issues discussed above influence institutional resilience, as they provide insights into how groups respond to change. This chapter continues with an overview of the thesis, beginning with a multi-disciplinary literature review.
1.2 Scope of literature review

A review of the literature revealed several recurring themes, and these are depicted in Figure 1.2. They include issues relating to adaptive change; the development of a collective vision of sustainability; volunteerism and the role of stewardship groups in sustaining local natural resources; and the influences of social learning and social capital building on group dynamics and community life.

FIGURE 1.2 Major themes covered in the literature review.

The overall theme of the literature review is based on the premise that to achieve sustainable human systems, we have to have sustainable ecosystems, and that humans cannot be disconnected from nature (Milbrath, 1989). Volunteers play a vital role in facilitating change towards sustainability, as the work they undertake can impact upon social groups and whole communities (Pearce, 1993; Bell, 1999). As with ecological systems, human systems operate on a range of scales, in time and over different geographical areas (Holling, Gunderson & Ludwig, 2002). The ability of systems to change when environmental circumstances change is termed ‘resilience’ (Holling, 2000). Change can be facilitated through social processes such as social learning and social capital accumulation (Kilpatrick & Falk, 2001), ‘adaptive change’ (Holling, Gunderson & Ludwig, 2002), and the possession of a collective vision of sustainability (O’Sullivan, 1999; Costanza, 2000).

Chapter Two, the first of three literature review chapters, begins with a reflection of where Western society is currently going with respect to sustainability. The reviewed literature highlights that if the current path is maintained, environmental problems will continue unabated and human poverty and suffering will continue to escalate (Annan, 2002). The literature reveals that a shared vision of sustainability may enable a reasonable future to be reached for the whole planet. The vision seeks to balance natural resource depletion with the rate at which an ecosystem can produce the goods...
and services being exploited (Costanza, 2000). The review then explores how such a vision may emerge from the development of an individual’s ecological identity and personal value system.

Chapter Two continues reviewing literature which implies that being a part of a stewardship group contributes to an individual’s ecological and social identity, and helps develop personal skills. At the same time, individuals in community groups contribute to collective decision-making and problem solving. The literature reveals that voluntary work can be highly rewarding for individuals and their communities. Some authors see volunteering as central to civil society (eg Pearce, 1993; Zappalà, Parker & Green, 2001; Cox, 1995; Howlett & Ellis, 2002). Indeed, Liljeros, Amaral & Stanley (2003) suggest that well-functioning societies exist where there are highly connected, active voluntary groups, which foster positive social relationships among members of the society. Thus, the processes operating in voluntary organisations are discussed next, including personal and social identity formation, group dynamics, social learning and social capital accumulation.

The literature review continues in Chapter Three which presents an Australian context for the attainment of sustainable local communities through land and water stewardship. Social mobilisation is one approach towards sustainability that is becoming increasingly popular throughout Australia, and is exemplified through the Landcare Movement. This approach fosters partnerships with citizens, stewardship groups and governments. New institutional arrangements for NRM in Queensland are discussed in the final part of this chapter.

Chapter Four examines the role of people and communities in contributing to ecosystems-based management. This approach promotes community involvement in natural resource management (Pirot, Meynell & Elder, 2000). One component of ecosystems-based management is ‘resilience management’. This approach uses the idea of ‘adaptive change’ or panarchy to enhance the development of resilience, and thus, sustainability in human communities (Walker, Carpenter, Anderies, Abel, Cumming, Janssen, Lebel, Norberg, Peterson, & Pritchard, 2002; Holling, Gunderson & Ludwig, 2002). Panarchy draws parallels with the way that ecosystems operate on a range of spatial and temporal scales, and in a climate of paradox – change and
persistence, stability and instability, and predictability and unpredictability (Holling, 2000). According to this idea, ecosystems and human communities adapt to stress in different ways, and on a range of spatial and temporal scales. In accordance with the adaptive cycle, social processes such as social learning and social capital accumulation operate on a number of spatial and temporal scales, and they influence each other (Scheffer, Westley, Brock & Holmgren, 2002; Cocks, 2003). The adaptive cycle model can help in understanding the role of social processes in maintaining sustainable, resilient stewardship groups. It may also help to identify factors leading to local level sustainability (Gunderson, Holling & Ludwig, 2002). The final section of Chapter Four summarises the main themes, assumptions and implications of the literature review, and then presents a conceptual framework for the study. This provides a starting point for undertaking the research.

1.3 Methodology and research approach

Chapter Five describes the basis for collecting and analysing data (the research approach and techniques used). In this instance, the research approach is phenomenography, which sits within a qualitative paradigm. It is an interpretive approach, based on the central assumption that there is variation in the ways in which people experience the same phenomenon (Prosser & Trigwell, 1997). Phenomenographic studies help us to see the world as others see it (Marton, 1994a; Saljo, 1988). The research techniques used to collect the data were personal and group interviews, based on a semi-structured set of questions. Steps in conducting the study are illustrated in Figure 1.3. This is a cyclical rather than a step-wise procedure, with several steps occurring simultaneously (Dahlgren & Fallsberg 1991, pp150-156; Sandberg, 1994, p86).
Step 1 involved selecting the people and places for interviews. All participants were chosen on the basis that they were ‘catchment volunteers’ working within a recognised environmental group or program. To capture the range of variation in experiences of the participants, individuals and groups were selected from a variety of stewardship organisations from Brisbane to Mossman, just north of Cairns, along the east coast of Queensland. Thirteen personal interviews were completed, and a further thirteen group interviews were held, comprising groups of between two and ten participants. A total of 26 interviews involving 85 participants were conducted in the final study. When interviews revealed no new information, it was determined that the correct number of respondents was reached, and all of the conceptions discovered.

Step 2 comprised the interviews. All interviews (both group and personal) followed the same semi-structured format, with a basic set of questions to be answered in a particular format. The exact wording varied with each interview, and occasionally other questions were added to follow-up on particular points.
Steps 3 to 7 comprised the manual processes of data analysis, including transcribing each audio-taped interview word for word; using coloured pens to highlight similar ideas within each transcription (tagging); coding key ideas and topics of conversation; grouping similar ideas and understandings of experiences under appropriate labels; and finalising conceptions. From this, an Outcome Space was constructed to depict the relationships between conceptions (Marton, 1988a).

Step 8, the final stage, involved analysis of the Outcome Space. This provided several new conceptual and practical outcomes.

1.4 Findings of the study

Chapters Six to Ten are concerned with the major conceptions held by the volunteers. Chapter Six discusses the conception of seeking and maintaining balance; Chapter Seven discusses the conception of developing/ maintaining an identity; Chapter Eight discusses two conceptions together, the conceptions of networking and learning. Chapter Nine discusses the conception of empowering; and finally, Chapter Ten discusses the conception of sustainable held by the participants in the study. Chapter Eleven looks at how each of the conceptions relate to each other, and these relationships are depicted in the Outcome Space. This chapter also presents the researcher’s final reflections and thoughts about the study, and how the results presented in the thesis relate to the metaphor of panarchy. In conclusion, the researcher presents some guidelines for sound environmental governance of local resources, and suggests some possible future directions to further promote the role of volunteers in stewardship groups in developing and maintaining sustainable, vibrant communities.
... the overwhelming weight of the evidence and analysis indicates that society, as presently constituted cannot continue on its present trajectory. The kinds of changes required are so drastic, that when implemented, they will constitute a new society. The old car cannot be fixed up any more, we must design not simply a new model but a new kind of vehicle, one that is not on display on any showroom floor (Milbrath, 1989, p8).

2.0 Introduction

Environmental problems stem from human societies (Fien, 2003; Irwin, 2001; Milbrath, 1989; Young, 1991). Thus, while it is increasingly recognised that sustainability is not an ecological problem, an economic or social one - rather it is a combination of all three (Holling, 2000), several authors suggest that cultural considerations are equally as important in determining sustainability (eg Milbrath, 1989; Oviedo & Brown, 1999; Sochaczewski, 1999; Becker, Jahn & Stiess, 1999; Costanza, 2000). The literature reviewed in the first part of this chapter begins with a reflection on the ways in which different worldviews may lead us into different futures. It then explores how a holistic, shared vision for a sustainable future may emerge from the development of an individual’s ecological identity, and personal value system. The chapter then moves to a review of volunteers and voluntary groups in local communities. Finally, processes such as social learning and social capital building among different individuals and social groups within a community are addressed. Social processes are important components for the development of ecological literacy, as each influence personal and societal level changes.
2.1 Our current trajectory

For thousands of years, many humans believed that natural resources were limitless, and some even believed it was their duty to control and manipulate ecosystems and everything in them solely for human consumption (Glasby, 2002). Looking back in time, Glasby (2002) asserts that widespread civilisations have collapsed twice within the past 5000 years, and that humans now face a third, global level collapse if immediate steps are not taken to change human behaviour on a global scale.

2.1.1 The need for change

Although there have been remarkable achievements in the latter half of the twentieth century with respect to sustainability of natural resources, environmental degradation continues to escalate (Irwin, 2001; Corson, 1995; Milbrath, 1989; Young, 1991; Costanza, 2000). People have simplified landscapes for human use at the expense of biodiversity and loss of ecosystems (Folke et al, 2002). El-Ashry (2002) observes that ten years after the 1992 Rio Earth Summit, social and environmental problems have not diminished, despite the development of a range of international, national and local level structures to face major issues. Laws, treaties and policies addressing key issues, as well as operational tools and political know-how have proliferated, providing new agendas and re-kindling interest in civil society. Despite these initiatives, real action on the ground has been slower than expected (El-Ashry, 2002).

In Australia, more mammals have become extinct in recent years than anywhere else on Earth, and introduced species now make up 10% of all of Australia’s terrestrial mammal fauna (Krockenberger, Kinrade & Thorman, 2000). Biodiversity loss is considered one of Australia’s most serious environmental problems (Australian Bureau of Statistics, 2003b). Loss of biodiversity is attributed to land clearing, feral plants and animals, dryland salinity, pollution, sedimentation of waterways, altered fire regimes and climate change (Australian Bureau of Statistics, 2003b). Across Australia, 400,000 hectares of land were cleared from 1996 to 1999 (See Table 2.1).
The Australian Government’s State of the Environment Report of 1996 recorded enormous biodiversity and habitat losses across Australia between 1788 and 1995, including the loss of about 43% of forests; 60% of coastal wetlands; 90% of temperate woodland and mallee; almost 100% of temperate lowland grasses; and 75% of our rainforests (Yencken & Wilkinson, 2000).

Australia is a dry continent with only a few waterways holding a permanent supply of freshwater (Australian Bureau of Statistics, 2003b), yet the amount of water that Australians extract and use far exceeds the country’s capacity to replenish this supply. Catchment land use has significantly changed whole waterways. Water for agricultural, urban and industrial use has been diverted from rivers and streams and pumped from aquifers and artesian basins, upsetting ecosystems and reducing biodiversity (Australian Bureau of Statistics, 2003b; Hundloe & Macdonald, 1997).

In addition, land clearing, disturbance of coastal acid-sulphate soils, and excessive inputs of nutrients, pesticides and other pollutants are degrading creeks, rivers, wetlands and whole catchments (Commonwealth of Australia, 2000). Specific environmental degradation of catchments includes the dumping of raw sewerage into waterways leading to toxic algal blooms, salinity, removal of native vegetation, introduction of feral plants and animals, reduced biodiversity, increased erosion due to human activity, and the acidification of soils (Commonwealth of Australia, 2000).
Managing coastal lands and waterways is a matter of great concern for the overall sustainability of Australia’s natural systems (Yencken & Wilkinson, 2000). 83% of Australians live within fifty kilometres of the coast, an ecologically sensitive zone. Australia has one of the world’s largest marine and coastal areas, comprising over 16 million square kilometres (Australian Bureau of Statistics, 2003b). They support a wide variety of habitats such as mangroves, rocky shores, seagrasses, coral reefs, gulfs, bays and estuaries, and a huge continental shelf. These systems are coming under increasing pressure from urban sprawl, industrial development, and vegetation clearance in catchments (Australian Bureau of Statistics, 2003b). Coral reefs face pressures from landuse practices, tourism, fishing, pest species, and coral bleaching possibly due to global warming (Australian Bureau of Statistics, 2003b).

So even though there is a growing awareness of the impacts of human activities on natural resources, environmental problems persist. As Grafton, Jotzo & Wasson (2003) point out, humanity has gathered a great deal of knowledge and expertise about complex environmental issues over the past thirty years, yet environmental degradation is undoubtedly escalating. Current mechanisms for coping with these problems are apparently not enough. The urgent need for change is becoming more and more apparent. As human populations soar around the world, pressure grows on agricultural industries to produce more food. This, in turn has major environmental implications, as the need for clean air, water and fertile soil becomes more pressing. Land and water is unequally distributed across the globe, and these social inequities become even greater as human populations grow (Wester, Merrey & de Lange, 2003; El-Ashry, 2002; Global Environment Facility, 2002).

Solutions are needed at both societal and individual citizen levels (Jensen & Schnack, 1997). One major barrier to changing human attitudes and behaviours is a lack of empirical evidence (and a general feeling of disbelief) to support the notion that many contemporary human activities do long-term, irreversible damage to the Earth (Corson, 1995). In addition, there is conflicting information and growing confusion over the nature of social and environmental threats, and about current practices and policies for addressing them (Beck, 1986). When people are made aware of environmental problems and are even convinced of their detrimental impacts, often there is a sense that solutions are too expensive or too difficult to deal with (Corson,
Finally, there seems to be a general refusal to take personal responsibility for the consequences of negative environmental practices (Corson, 1995; Wackernagel & Rees, 1996). Perhaps this is because such action is counter to personal and/or social belief systems; or because of inadequate institutional support for such initiatives; or because of a general lack of motivation to change (Corson, 1995; Stern, 2000). Costanza (2000) maintains that change cannot occur until there is a collective vision of what sustainability is, and how it might be achieved. The next part of this section looks at the path that many in Western society are taking, and then one that others have chosen - the path of environmental stewardship.

2.1.2 Different views, different paths

The way in which individuals make sense of their surroundings is often referred to as a worldview or paradigm, and the belief system or way in which a whole society views its world, may be thought of as a ‘Dominant Social Paradigm’ (DSP) (Milbrath, 1989). According to Milbrath (1989), a set of beliefs includes both established scientific ‘facts’ and the values that individuals ascribe to these ‘facts’. Traditionally, scientific facts are arrived at through rational, deductive logic and reasoning, hypotheses testing and data generation. At some stage the data may be used to declare certain observations as undisputed facts, which over time can be disproved if conflicting data are produced. As Milbrath (1989) observes:

Facts are not absolutes; they are beliefs that we hold more or less strongly (p61).

Further, he contends that the same basic approach is used to ascertain the consistency and importance of a value. Values, he concedes are harder to verify than many scientific facts that are physically measurable. He points out that science and the generation of facts is not value-free, as is often portrayed. Rather than facts, science provides data for providing a firmer foundation for previously held convictions, which can then be more clearly articulated. In essence:

Science is not free of feeling, or emotion, or values; science derives meaning only in a cultural context (Milbrath, 1989, p62).

Stoll-Kleeman & O’Riordan (2002) agree, and contend that ‘truth’ is determined by the social and occupational setting that frames each individual’s knowledge of a
subject. As well, Berkes & Folke (2002) point out that sustainability of natural resources is as much a social problem as an ecological one, although solutions are often sought through scientific endeavours alone. They emphasise the need for an integrated approach to natural resource management utilising local ecological knowledge and scientific approaches to create a viable future for all people. Berkes (1999) argues that in almost every indigenous culture, there is an ethic of non-dominant, respectful human/nature relationship. These are ‘sacred ecologies’ where belief structures are an integral part of their traditional ecological knowledge. However, Berkes (1999) maintains that Western science cannot appreciate or use these values because scientists categorise indigenous knowledge as either ‘myth’ or ‘data’.

Milbrath (1989) calls for ‘…a new way of thinking’ (p84) about knowledge and values and how they can be used to shape public policy and the creation of vibrant sustainable societies. Values are either consciously or unconsciously placed in a hierarchical order, and over time help to build civilisation in the form of traditions, customs and rites. These characterise a society (Cocks, 2003). Individuals within societies make value judgements about everything, including ‘scientific facts’ (Milbrath, 1989). If an idea is palatable, people tend to accept it as ‘fact’. Milbrath explains that values have feelings of either like or dislike attached to them, whereas a ‘belief’ is something regarded as being credible, unless enough evidence is accumulated to suggest otherwise. Some beliefs are held firmly, due to the perceived amount of evidence existing to confirm their existence. This could be, in part, because people want to believe them…they are valued …while others are more easily discarded on the basis of much less evidence. The process by which an idea becomes credible (that is, believable) is often gradual and unconscious. People cannot always articulate how they came to ‘know’ something, it is just stored in the back of their minds (Milbrath, 1989). Millar (1997) explains that information is constantly being reshaped by a person’s values, experiences and social context, including events and interactions with other individuals. Thus, a person’s social and cultural background shapes the way a person values and makes judgements about everything that he/she experiences.
Values are often manifested as attitudes that influence habituated actions (Cocks, 2003). Habituated actions passed down to new generations develop resilient institutions that build civilisations (Berkes & Folke, 2002). The term ‘institution’ is difficult to define (Conners & Dovers, 2002). According to Jeanrenaud (1999), institutions are ‘…..the underlying (formal and informal) rules which influence patterns of behaviour’ (p129). Berkes & Folke (2002) argue that institutions include rules that are socially constructed and are used each day to implement repetitive, habituated activities that can potentially affect other people. An ‘institution’ may be as trivial as a single rule in a game of football, or it may the aggregation of a set of rules and regulations that shape daily human activities and personal relationships (Conners & Dovers, 2002). Krockenberger, Kinrade & Thorman (2000) add that institutional rules provide a framework for undertaking routine, collective tasks that enable a society to continue. Organisations and the services they deliver form part of an institutional system, and when services and organisations are considered together, they are often referred to as ‘institutions’ – for example, schools, banks, hospitals, voluntary organisations, and government departments. “Institutional arrangements” implies a system of decisions, rules and agreements between organisations, and possibly the creation of new ones, for policy implementation. “Institutional memory” is the collective memory and knowledge accrued by individuals in a community over time, and provides guidelines for daily activities and decision-making (Berkes & Folke, 2002).

Institutions are integral to the daily fabric of communities, and reduce uncertainty by providing codes of conduct and guidelines for responding to changing circumstances (Conners & Dovers, 2002). Over time, small changes within institutional memory can facilitate paradigm shifts, that is, a change from the Dominant Social Paradigm to a paradigm of sustainability (Milbrath, 1989). Thus, changes at a personal level can contribute to collective change, albeit rather slowly. The next section describes some ways in which these changes are being observed.
2.1.3 Standing at the crossroads

El-Ashrey (2002) notes that people are beginning to change as an understanding of the links between environmental health and human livelihoods grows. Indeed, according to several authors (eg Cocks, 2003; Annan, 2002; Costanza, 2000; O’Sullivan, 1999; Papadakis, 1993; Milbrath, 1989) humans may be on the verge of a new era, making choices now that will determine the quality of life for future generations and the state of the global environment. O’Sullivan (1999) explains:

…we are living in between stories, the modern story and an emergent story that we do not fully comprehend but must nevertheless envision (p180, 181).

O’Sullivan believes that individuals and whole societies need to consciously create a new paradigm to ensure a sustainable future. Along with Cocks (2003), Milbrath (1989), Papadakis (1993) and many others, O’Sullivan (1999) describes the new paradigm as one where environmental issues are at the fore, with proponents advocating a new way of thinking, new values and beliefs, a new environmental paradigm (NEP) (see Table 2.2).

The New Environmental Paradigm is one likely path to a sustainable future. It draws on ideas of many religious institutions and indigenous cultures where NEP values such as ‘stewardship, reciprocity, family loyalty, community service and charity’ are practised (Young, 1991, p159). A major challenge facing those concerned with the sustainability transition is the need to create a shared view of the future, one that includes benefits for people and nature. As well, the New Environmental Paradigm has to be consciously placed in the hearts and minds of all people around the Earth. As Folke et al (2002) point out:

….the transition to sustainability derives from fundamental change in the way people think about the complex systems upon which they depend….. Thus a fundamental challenge is to change perceptions and mind-sets, among actors and across all sectors of society, from the over-riding goal of increasing productive capacity to one of increasing adaptive capacity, from the view of humanity as independent of nature to one of humanity and nature as coevolving in a dynamic fashion within the biosphere (p13).

As the foregoing suggests, sustainability begins at a personal level. It requires conscious thought about the impacts of daily actions on the environment and what
these mean for the future. Environmental stewardship is one way individuals can consciously work towards sustainability (Annan, 2002).

**TABLE 2.2 Contrasts between competing paradigms**

[Source: adapted from Milbrath, 1989]

<table>
<thead>
<tr>
<th>New Environmental Paradigm</th>
<th>Dominant Social Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. High valuation on nature</strong></td>
<td><strong>1. Lower valuation on nature</strong></td>
</tr>
<tr>
<td>a. nature for its own sake – worshipful love of nature</td>
<td>a. use of nature to produce goods</td>
</tr>
<tr>
<td>b. holistic relationship between humans and nature</td>
<td>b. human domination of nature</td>
</tr>
<tr>
<td>c. environmental protection over economic growth</td>
<td>c. economic growth over environmental protection</td>
</tr>
<tr>
<td><strong>2. Generalised compassion toward</strong></td>
<td><strong>2. Compassion only for the near &amp; dear</strong></td>
</tr>
<tr>
<td>a. other species</td>
<td>a. exploitation of other species for human needs</td>
</tr>
<tr>
<td>b. other peoples</td>
<td>b. lack of concern for other people</td>
</tr>
<tr>
<td>c. other generations</td>
<td>c. concern for this generation only</td>
</tr>
<tr>
<td><strong>3. Careful plans and actions to avoid risk</strong></td>
<td><strong>3. Risk acceptance in order to maximise wealth</strong></td>
</tr>
<tr>
<td>a. science and technology not always good</td>
<td>a. science and technology a great boon to humans</td>
</tr>
<tr>
<td>b. halt to further development of nuclear power</td>
<td>b. swift development of nuclear power</td>
</tr>
<tr>
<td>c. development and use of soft technology</td>
<td>c. emphasis on hard technology</td>
</tr>
<tr>
<td>d. government regulation to protect nature and humans</td>
<td>d. de-emphasis on regulation – use of the market – individual responsibility for risk</td>
</tr>
<tr>
<td><strong>4. Limits to growth</strong></td>
<td><strong>4. No limits to growth</strong></td>
</tr>
<tr>
<td>a. resource shortages</td>
<td>a. no resource shortages</td>
</tr>
<tr>
<td>b. increased needs of an exploding population</td>
<td>b. no problem with population</td>
</tr>
<tr>
<td>c. conservation</td>
<td>c. production and consumption</td>
</tr>
<tr>
<td><strong>5. Completely new society</strong></td>
<td><strong>5. Present society OK</strong></td>
</tr>
<tr>
<td>a. serious damage by humans to nature and themselves</td>
<td>a. no serious damage to nature by humans</td>
</tr>
<tr>
<td>b. openness and participation</td>
<td>b. hierarchy and efficiency</td>
</tr>
<tr>
<td>c. emphasis on public goods</td>
<td>c. emphasis on market</td>
</tr>
<tr>
<td>d. cooperation</td>
<td>d. competition</td>
</tr>
<tr>
<td>e. simple lifestyles</td>
<td>e. complex and fast lifestyles</td>
</tr>
<tr>
<td>f. emphasis on worker satisfaction</td>
<td>f. emphasis on jobs for economic needs</td>
</tr>
<tr>
<td><strong>6. New politics</strong></td>
<td><strong>6. Old politics</strong></td>
</tr>
<tr>
<td>a. consultation and participation</td>
<td>a. determination by experts</td>
</tr>
<tr>
<td>b. emphasis on foresight and planning</td>
<td>b. emphasis on market control</td>
</tr>
<tr>
<td>c. willingness to use direct action</td>
<td>c. opposition to direct action – use of normal channels</td>
</tr>
<tr>
<td>d. new party structure along a new axis</td>
<td>d. left-right party axis – argument over ownership of means of production</td>
</tr>
</tbody>
</table>
According to Folke et al (2002) sustainability is about maintaining options for the future. Sustainable development aims to improve the well-being of humans and maintain the health of ecosystems, as these are seen as basic life-support systems for all people on Earth (Folke et al, 2002). To some authors, sustainability is essentially about the evolution over long time periods of relationships between people and the biogeographical systems in which they live (Cocks, 2003; Berkes & Folke, 2002). Sustainability addresses issues of how societies might adapt to transformations in landscapes resulting from human use of natural resources (Holling, 2000).

Goals of sustainability may only be achieved if all stakeholders (at each appropriate level of negotiation) understand and accept a range of different perspectives held by different actors (Becker, Jahn & Stiess, 1999). This may only happen through the development of a major paradigm change that transcends political, social, cultural, economic, and environmental views, and leads to a change in human behaviour (Hundloe & McDonald, 1997). This paradigm shift could be achieved through a process of transformational education initiated by environmental educators across the globe (O’Sullivan, 1999). Changing mind-sets and human behaviours are huge and challenging tasks, ones that have traditionally been left to educators. The next section investigates this idea further.

### 2.2 Ecological literacy, a framework for a sustainable future

Environmental problems ultimately stem from the attitudes and learned behaviour that underpins many human activities. Education - or what Milbrath (1989) calls “learning our way out” - should play a major role in changing human attitudes and values to reduce adverse environmental impacts (see Fien, 2001; Stapp, 2000; Jensen, 2000; O’Sullivan, 1999; Jensen & Schnack, 1997; Robottom, 1995; Hansen, 1994; Fien & Trainer, 1993). O’Sullivan (1999) points out that contemporary Western educational theory draws upon psychology, sociology, and to a limited extent anthropology. It lacks an integrated, holistic perspective that could potentially provide a cosmology or planetary vision for contemporary society. In this regard, contemporary educational theory suffers from the same disconnected, narrow vision that has plagued contemporary scientific endeavours (O’Sullivan, 1999).
The problem is compounded by the way in which the majority of educational institutions are geared towards teaching skills to equip individuals for living in a technological, consumer-oriented global market (Milbrath, 1989; O’Sullivan, 1999; Fien, 2001). Even in the field of adult education, the emphasis of educational theorists has been on the needs of the individual, and generally not focused on learning that takes place in social movements and other collective action (O’Sullivan, 1999). Thus educational theory, until very recently, has proceeded largely without a critical social perspective (Huckle, 1993). The challenge today for contemporary educators is to work within both formal and informal educational institutions across society to develop a collective vision for a sustainable future. O’Sullivan (1999) poses the question: How do educators fit in with this momentous change? (p46). According to Cocks (2003), change in society is a collective learning experience driven by social movements that have the capacity to mould government responses to key issues. With respect to environmental issues, stewardship groups are potentially very influential in playing this role (Donald, 1997). ‘Ecological literacy’ developed within stewardship groups could contribute to a wider ecological understanding within communities.

The term ‘ecological identity’ is used in the literature to describe the love of nature that leads to curiosity and learning about a particular natural system (Orr, 1992; Thomashow, 1995; Carr, 2002; Seddon, 1997). Ecological literacy is distinguished from a ‘sense of place’ as it is not necessarily site specific, but applies to people who identify strongly with nature, wherever it is (Thomashow, 1995). Ecological literacy is an important component of what Edmund O’Sullivan (1999) terms ‘transformational education’. O’Sullivan believes that sustainability can be attained through an ecological cosmology that is developed through transformational education. He describes the changes in educational practice that are required to achieve this:

…..we are in need of a cosmological story that can carry the weight of planetary consciousness into where we are now moving. To move towards a global planetary education, it will be necessary to have a functional cosmology that is in line with the vision of where this education will be leading us. Drawing from the work of Thomas Berry (1988), I refer to this postmodern period as the ‘ecozoic’ period. This choice for an ‘ecozoic vision’ can also be called a ‘transformational’ perspective because it posits a radical restructuring of all current educational directions. The educational framework appropriate for this movement must then not only be visionary and transformative, but clearly must go beyond the conventional educational outlooks that we have cultivated for the last several centuries (O’Sullivan, 1999, p45).
Changes are needed in both formal and informal educational settings, in schools, stewardship groups and other social systems. According to Folke, Colding & Berkes (2003) ecological literacy incorporates appropriate responses to environmental change on a range of levels, from individuals to institutions. One approach to the management of natural resources is to develop ecological consciousness at a community level through social strategies and processes. Indeed, recent literature linking people and nature makes extensive reference to communities, and raise important questions about the role of communities and stewardship groups in managing natural resources (eg Stevenson, 2002; Berkes & Folke, 2002; Stoll-Kleeman & O’Riordan, 2002; Carr & Halvorsen, 2001; Pirot, Meynell & Elder, 2000; Walker et al, 2002; Milbrath, 1989; Costanza, 2000).

Stoll-Kleeman & O’Riordan (2002) point out that members of local communities are often encouraged to participate in environmental problem-solving, yet some natural resource managers still fail to recognise that community members are diverse and hold a range of values, knowledge and understanding of particular issues. Arriving at a shared vision among stakeholders and different social groups is critical for the sustainability of local natural resources (Lawrence & Deagen, 2001). It must be remembered, however, that a change in values does not happen simultaneously within and between social groups. Often there are differences in opinion, and a range of values held between different organisations and stakeholders (Smith & Berg, 1987). Even within social groups where there is interest in developing a vision for a sustainable future, there is debate and conflict about assumptions underlying the relationship between people and nature, which, in turn, affects the development of a shared vision (Hull et al, 2002).

Nevertheless, when interested groups and stakeholders do get together, communication and transfer of information becomes easier; individuals are presented with more knowledge, more choices and more points of view than ever before (Kilpatrick, Bell & Falk, 1998; Kilgore, 1999; Cocks, 2003). More choices are often accompanied by more uncertainty and decision-making is more complex. This in itself, may result in tension and conflicting action (Kilgore, 1999; Cocks, 2003). Yet conflict per se is not necessarily negative, as it may result in the construction of social
norms that develop over time when a diversity of people collaborate to solve problems (Lee, 1993; Kilgore, 1999). Problem-solving, in turn, influences every-day decisions, including decisions about natural resources (Lee, 1993).

Understanding who and what constitutes a stakeholder, social group or community, and who has access and control over local natural resources, can influence decision-making. This in turn, has major implications for the beneficiaries of the resources, and the well-being of local communities and ecosystems (Jeanrenaud, 1999). Part of the process of collective decision-making is to be aware of the range of ‘socially different needs’ within a community to solve natural resource management problems. Natural resource managers often refer to people within communities who have an interest in, or need for, particular resources as ‘stakeholders’ (Jennings & Lockie, 2002).

The next section examines the roles of individuals and social groups in communities and how a shared vision for sustainability might develop over time. It then moves to a discussion of active citizen participation in community life and the contribution that volunteers make to the social fabric of communities. The processes of social learning and social capital are explained in terms of the scales at which they occur, and how these shape personal, group and community change. This section of the chapter concludes by discussing the changes that occur to surrounding landscapes as a consequence of community level changes.

2.3 Individuals, social groups and collective visions

According to Calhoun, Gerteis, Moody, Pfaff, & Virk (2002), individuals are largely shaped by their social relationships and so cannot exist outside a society in which their aspirations and ability to fulfil them are largely derived from the social institutions available to each individual. On the other hand, personal characteristics contribute to the nature of the society to which individuals belong. Thus an individual’s identity and his/her social role are socially constructed (Calhoun et al, 2002). Accordingly Hogg & Abrahms (1988) argue that:

Identity, specifically social identity, and group belongingness are inextricably linked in the sense that one’s conception or definition of who one is (one’s identity) is largely composed of self-descriptions in terms of the defining characteristics of social groups to which one belongs (p7).
This means that an individual’s identity and self-image are formed by the groups to which they belong. When answering the question “Who am I?” individuals may respond with the hobbies they have, the position they hold in their family, the type of work they do, and the social groups or community to which they belong (Kilgore, 1999; Napier & Gershenfeld 1999). The term ‘community’ has always been an important organising concept in sociology (Manzo, 2002). Originally conceived by Tonnies in the late-1800s to refer to the mutual friendships and interdependence of rural neighbours (Manzo, 2002), more recently, ‘community’ has been redefined to include urban and rural settings where there is ‘a distinct social and economic interdependence of diversified individuals within a given locale’ (Bellah, 1995, p50, cited in Manzo, 2002). Manzo (2002) points out that some authors refer to non-diverse groups of individuals as ‘communities’, for example, ‘the gay community’, the ‘on-line community’ and so on – denoting a network rather than a geographic location. Such communities are not villages or neighbourhoods, but people who share a common interest or vision (Manzo, 2002). Stevenson (2002) explains that ‘community’ may be thought of as collaboration among a diverse group of people to achieve common aims or to pursue common interests, and is not necessarily place-based. He also points out that while people may feel a sense of belonging to a community, communities are not necessarily homogeneous social entities. Thus, the term ‘community’ can be interpreted in a variety of ways, depending upon the context in which it is being used.

Being part of a social group within a community enables individuals to be supported in their views, strengthening opinions and legitimising actions. It allows people to play an important role in community issues (Hirst, 1994; Kilgore, 1999). Even in purely social groups,

…members claim a growth of personal confidence, an improved ability to make constructive personal relationships, a variety of personal, social, physical and coping skills, and some of them widened interests and a willingness and ability to take on organisational responsibilities (Elidon, 1995, p.78, cited in Kilgore, 1999).

Many individuals gain a sense of solidarity from the intensification of group membership over time (Kilgore, 1999). As individuals’ skills develop and solidarity builds, so the group itself becomes more cohesive and confident as an effective
decision-maker. Hirst (1994) contends that a cohesive group becomes effective in governance, as the group’s objectives and expectations become known within society (Hirst, 1994). Further, he believes that although individuals may identify strongly with a social group, the group is not an entity itself; rather it exists as a set of relationships that each group member has with every other member of the group. Individuals within the group may operate quite differently within that group than alone, precisely because of these relationships.

From the previous discussion, it can be inferred that belonging to community groups is something that people do because the groups contribute to personal identity; they allow individuals to be connected with others in their community; and/or because they provide a way for individuals to contribute to collective decision-making. The contributions to community life through group activities depend on the quality of the relationships formed among individuals within a group and between groups of groups in the wider community. The next section explores some benefits of being active in social groups and community life.

### 2.4 Active citizens in contemporary communities

Eva Cox (1995) maintains that there are three main arenas where individuals act in society: family life, paid work and public life. She contends that to be fully rounded as human beings, individuals should strive to be active in all three. The third sphere, *vita activa* or active public life, is the one in which civil society is formed. It is in this arena that citizens become rounded as humans, capable of collective thoughts, debate and action.

Being active in neighbourhoods and communities often means that individuals undertake unpaid work. Robertson (1997) refers to these activities as ‘ownwork’ as they are personally gratifying, undertaken because they are personally fulfilling, and contribute to society and nature in positive ways. ‘Ownwork’ includes

…forms of work, paid or unpaid, which people organise and control for themselves; in order to achieve purposes which they perceive as their own; as individuals, in groups, and in the localities in which they live (Robertson, 1985, p206; cited in Milbrath, 1989).
According to Milbrath (1989) many problems in Western communities stem from the ‘glorification’ of paid employment on one hand, and the reality of an overall lack of paid jobs, on the other. When there are not enough paid jobs to go around, a variety of social ills emerge, as individuals struggle to attain basic needs such as food, housing, clean water and clothing. As well, the long-term unemployed are made to feel as if they have nothing to contribute to society, resulting in boredom, low self-esteem and poverty (Milbrath, 1989; Robertson, 1997). Yet, in many communities around the world, paid work is not as highly valued, and citizens participate more fully as volunteers in community life (Milbrath, 1989).

Robertson believes that ‘ownwork’ should be accepted as being just as valuable as paid employment, as more people look for ways to find work that empowers individuals to be self-sufficient. Such work enables individuals to become multi-skilled, as they experiment with new ways of doing things for themselves. Individuals in local communities where ownwork is encouraged will pursue knowledge, skills, and cooperative sharing and learning arrangements to accomplish a variety of tasks that give meaning to their existence (Milbrath, 1989). Community institutions encouraging ‘ownwork’ can enhance an individual’s quality of life, and contribute positively to civil society.

According to Baubcock (1996; cited in Zappalà, Parker & Green, 2001), civil society may be thought of as a triangular space between family, state and market. This social space may include clubs, voluntary associations, trade unions or other social groups within communities. Zappalà, Parker & Green (2001) place volunteers at the core of the triangular space – the very heart of civil society (depicted in Figure 2.1 below).

According to Wilkinson & Bittman (2002) volunteers have the capacity for compassion, caring and kindness. Furthermore, Wilkinson & Bittman (2002) see volunteering as genuine democracy or ‘rule by the people’, as it is grounded in the fabric of everyday social relationships. It is based on trust and inclusion.
Volunteers may be described as individuals in not-for profit organisations and programs, who freely undertake activities that are mutually beneficial to communities and volunteers for no financial remuneration (Bates, 1999). *Volunteering Australia* is the peak national body concerned with the promotion of volunteering as an enduring social, economic and cultural value for Australia (Volunteering Australia, 2002). This organisation estimates that 33% of Australians spend over 700 million hours volunteering each year. This work is valued at around $42 million dollars, yet much of the work goes unnoticed, and is certainly undervalued by society in general (Volunteering Australia, 2002).

Volunteers are integral to a wide range of social, scientific and environmental endeavours, although volunteering is traditionally associated with the welfare sector (Volunteering Australia, 2002). Yet in recent years volunteers have provided valuable information to help address issues of water quality, salinity, soil erosion and land degradation. They also play an important role in meteorology. For example, rainfall is recorded by over six thousand volunteers across Australia each day (Volunteering Australia, 2002). Robertson, (1997) discusses the need to develop a cultural template
that recognises and values the variety of community work undertaken on a daily basis such as voluntary work within organisations, and other types of unpaid work.

Cox (1995) maintains that everyone should find time to volunteer, and that society in general should value this unpaid work. This is because community well-being is influenced by the prosocial, voluntary actions of individual citizens who behave in ways that are intended to have positive consequences for the whole community (Rosenthal, Feiring & Lewis, 1998). Yet Jensen & Schnack (1997) warn that actions that are ritualistic and habituated can be counter-productive. They argue:

A school does not become "green" by conserving energy, collecting batteries or sorting waste. The crucial factor must be what the students learn from participating in such activities, or from deciding something else (p165).

Jensen & Schnack (1997) distinguish between the ability to act and habituated activities. They contend that if an activity is carried out because 'everyone is doing it', the activity has little personal meaning, and the environmental ethic driving the activity cannot be recognised and is unlikely to be maintained. They describe the ability of individuals to participate in a democratic society as 'action competence'. They associate the term ‘competence’ with being willing and able to participate, while ‘action’ implies such things as behaviour, movements, habits and activities. Jensen and Schnack (1997) point out that when individuals are aware of their actions, and can make decisions about them, their actions are more likely to be understood within the context of motives and reasons, rather than mechanical activities - that is, there is a cognitive dimension to the actions.

2.4.1 The decision to volunteer

Many people join voluntary organisations because they believe they are donating their time to a worthwhile cause (Pearce, 1993), or because they enjoy the group’s tasks (Napier & Gershenfeld, 1999). Donald (1997) asserts many people volunteer as they see it as an effective way of ‘getting things done’ (p.484). Over the past decade the number of citizens volunteering for stewardship groups has exploded, partly because people have decided to take personal responsibility for the restoration of degraded environments (Donald, 1997).
On some occasions, individuals are invited to join groups because members have helped them with their group in the past (Kilgore, 1999) while others join to enhance their career paths (Napier & Gershenfeld 1999; Donald, 1997). Others may be interested in developing new skills, making friends, or resolving personal issues through the social interactions that come from volunteering (Pearce, 1993). These days, volunteers are just as likely to be recruited from the corporate sector, and drawn from people in full-time employment, as from wealthy, middle-class women or retirees, looking for something to do (Zappalà, Parker & Green, 2001). Rosenthal, Feiring & Lewis (1998) conclude from their longitudinal study of individuals from birth until twenty-one year of age, that it is the existence of particular social structures which either encourage or deter individuals from volunteering. Whatever their motivation or background, members of voluntary organisations contribute enormously to society. As Pearce (1993) argues:

… there are millions of volunteer-staffed organisations which quietly and effectively provide invaluable services and promote significant societal change (p4).

Some of these impacts are explored in the following section.

2.4.2 Impacts of volunteering

Impacts of volunteer groups can be far-reaching. For example, even though there are many farmers who do not wish to be part of the Landcare Movement, their on-farm management has been changed because of it, presumably due to the peer pressure of neighbours who are members of the movement (Lloyd, 2000). Pearce (1993) claims that volunteer groups provide other benefits including mediation between government and individuals; integration of subgroups into society; affirmation of values; fund raising; initiating social change; and distributing power. Personal benefits linked to volunteering include improved academic performance, positive self-esteem, and personal development (Perry & Imperial, 2001). These positives benefits are assumed to lead to community-level benefits such as more active and effective citizenship and community collaboration. However the benefits of – and motivation for – volunteerism are not well understood (Perry & Imperial, 2001). Indeed, Pearce (1993) notes:
Social theorists have assumed that experiences as a volunteer have powerful effects on the volunteers and their larger society, but exactly how this influence occurs is rarely addressed (p5).

Groups with effective leaders can be particularly influential in their communities. An effective leader is able to persuade and influence group members through setting high standards, inspiring dedication and engendering enthusiasm so as to maximise the group’s possibilities (Lipman-Blumen & Leavitt, 1999). Having a permanent leader can help in decision-making, as some decisions should be made by the whole group, while others are best left to the leader (Napier & Gershenfeld, 1999).

When organising tasks or roles for volunteers, coordinators need to recognise that most volunteers have less crystallised expectations about the work they are undertaking than do paid workers (Smith & Berg, 1987). In this regard, volunteers need to have a clear picture of what they are required to do, and receive regular feedback about their jobs, to reduce fears that their work is not being valued. Smith & Berg (1987) also point out that it is important for members’ strengths, weaknesses and interests be known within the group, so that tasks and aspirations are matched to suit each individual.

Pearce (1993) notes that volunteers sometimes appear to be less reliable than paid staff, because they cannot always participate in organisational activities at certain times or places. In addition, they might not have the same level of commitment to some tasks as paid workers. Some people may be volunteering purely for social reasons, rather than because they believe that they are undertaking worthwhile activities. Group coordinators need to ensure that work arrangements reflect these considerations (Pearce, 1993). For example, tasks could be broken up into smaller pieces, so that if a volunteer comes to work once a fortnight for one afternoon, there is a small, achievable task that he or she can do. In addition, it would be wise to provide a roster where the volunteers can choose the people they wish to work with. Coordinators have to be well organised to ensure the best possible use of the volunteer workers’ time (Pearce, 1993).

Smith & Berg (1987) contend that an effective leader is one that explores all paradoxical tensions as they arise, seeking to understand relationships or links
between opposing forces in the group. Once identified, the leader should suggest appropriate action, which allows the group to move forwards, rather than become ‘stuck’ in patterns of behaviour which reinforce conflict (Smith & Berg, 1987).

Another attribute of an effective leader is the ability to interpret the implications of particular situations. For example, the leader will have to be able to distinguish between a crisis and something which is really no more that an annoyance (Lipman-Blumen & Leavitt, 1999). Conversely, the role of an effective leader, according to Lipman-Blumen & Leavitt, (1999) is to enlist the support of talented people before thinking about how to achieve the organisational goals. As they said:

Bring on the people. Getting the task done is not your solo job. It’s the whole group’s job (p103).

Most effective leaders are transformational, where relationships are based on some type of exchange between the leader and individuals. Such leaders inspire individuals into action through a clearly articulated and shared vision of the group, its goal and roles within the wider community. Transformation occurs when this vision is held by the group members who work together with the leader for change, and they, in turn, become leaders (Napier & Gershenfeld, 1999). If, however, the success of the transformation process leads to arrogance and communication channels are cut, group morale and performance can plummet (Napier & Gershenfeld, 1999).

Furthermore, Lipman-Blumen & Leavitt (1999) suggest that the leader should trust individuals to undertake their tasks without too much supervision, and be allowed to work at their own pace, as long as group goals are attained.

Thus, as the discussion above suggests, volunteer groups with good leaders seem able to better harness the drive and enthusiasm of members, compared to those without such a person. Other factors also influence the quality of voluntary work. For example, Pretty & Frank (2000) found that the longer an individual stays with a community-based natural resource management group, the more likely they are to arrive at new and creative ways to tackle environmental problems. They are more likely to be reflective practitioners, and use strategies such as networking, visioning and adaptive management to address long-term problems (Pretty & Frank, 2000).
Curtis et al (2000) undertook mailed surveys of Landcare groups in Victoria to gauge group effectiveness. They used levels of group activities to assess factors likely to affect group performance; the efficacy of each group, and the extent to which each group contributed to the program goals. The study revealed that the majority of groups (around 90%) were contributing to the program goals; and that the Landcare program itself was inherently sound. Factors influencing group effectiveness included the importance of having clear goals, objectives and plans; facilitation by an outside agency; open communication between stakeholders; and access to adequate resources and a permanent, funded coordinator (Curtis et al, 2000).

Whatever the situation, all volunteers contribute to a greater or lesser degree to societal changes (Pearce, 1993). Ways that these might come about are discussed under the following sub-headings of ‘social learning’ and ‘social capital’.

### 2.5 Social learning

A group’s social frame is a result of the relationships between individual members, the values and norms that the members bring with them, and also the ways in which individuals and the group as a whole deals with daily issues (Smith & Berg, 1987). This ‘organisational culture’ is developed over time through the formation of traditions, rites, rituals and the history of the group. It is learnt with others, rather than learning from others, a social learning experience (Cocks, 2003). A structure of traditional values and beliefs shapes social learning, and is built on by individuals from the moment of their birth (Milbrath, 1989). Social learning begins with an understanding of the social context – attitudes, language, values, norms, acceptable behaviour, acquisition of knowledge, and so on (Kilpatrick, Bell & Falk, 1998).

Norms reveal the character and culture of a social group, as they provide ground rules and shared ideas about how individuals behave and operate within a particular group (Smith & Berg, 1987). Norms are understood by experienced group members and learned, largely through observation, by new group members. These norms, learnt over time, build the fabric of a social group through trust and reciprocity (Kilgore, 1999, Cox, 1995; Baum, et al, 1999). Individuals learn in social groups through
developing an understanding of how one operates within the boundaries of that community. For example, knowing what attitudes and values are held, what language is used, and how to access knowledge, are things which are learned, shared, and built upon over time (Kilpatrick, Bell, & Falk, 1998). They are powerful mechanisms for controlling behaviour, as they also provide guidelines for sanctions when behaviour is inappropriate (Napier & Gershenfeld, 1999; Smith & Berg, 1987). If an individual’s behaviour is in conflict with group norms, pressure can be exerted by the group to see that the individual conforms. Yet it is the very existence of norms that allow for individual deviance, and facilitates the framing of a groups’ collective identity. Another aspect of group life is the ability of members to trust each other. As with the development of norms and values, trust builds slowly within a group, through the exchange of personal disclosures (Smith & Berg, 1987).

Thus social learning occurs through interactions between individuals, between individuals and groups, and between groups of groups in community settings (Kilpatrick, Bell & Falk, 1998). Through the development of social norms, behaviour and social networks, people collectively share problems and work towards solutions, which individually they might not be able to do – in effect they are ‘learning their way out’ (Milbrath, 1989).

Willingness to learn, and to overcome resistance felt by group members holding conflicting views, is essential to the discovery of new solutions. Smith & Berg (1987, p223) refer to collective problem-solving in social groups as ‘working through key conflicts’. Working through an issue sets in motion repetitive, progressive, explorations of the issue, resulting in change. Healthy conflict can assist in the development of goal setting, problem-solving and decision-making. These tasks actually become easier to accomplish when a diversity of options and opinions are allowed to be expressed (Napier & Gershenfeld, 1999). Discovering and nurturing paradoxical links or common ground between opposing views provides both emotional and intellectual release, allowing the group to learn, explore new ground, and to move forward (Smith & Berg, 1987). Compromise, on the other hand, can appear to make the contradictions disappear, but in doing so, much of the group’s vitality can be lost, resulting in mediocrity, ‘stuckness’ and routine behaviour that stifles creativity. As a result, a social group can become narrowly focused and self-
referential, rather than allowing for the exploration of opposing views which can provide opportunities for problem-solving and group learning (Smith & Berg, 1987).

When individuals are brought together for a common purpose, but have different opinions, cultures and/or laws, new social frameworks to inform behaviour and facilitate social learning and collective problem-solving have to be negotiated (Scheffer et al, 2002; Smith & Berg 1987). If this doesn’t happen, conflict may escalate and mistrust among community groups and individuals may ensue (Jennings & Lockie, 2002; Stoll-Kleeman & O’Riordan, 2002). With unresolved conflict there is an overall lack of cooperation and very little group learning occurs (Scheffer et al, 2002). As conflict arises, the perceived legitimacy of each stakeholder is contested. In situations where conflict is entrenched among stakeholders, progress towards such a shared vision can be extremely slow and frustrating (Lawrence & Deagen, 2001). Yet if the conflict remains within the boundaries of accepted social structures, the issue may be resolved and a successful outcome achieved (Lee, 1993; Scheffer et al, 2002).

A group’s culture is continuously evolving through the processes of conflict, learning, group problem-solving and sharing of time, resources, energy, norms and values of group members (Napier & Gershenfeld, 1999). Sometimes, the norms and values brought to a group will be taken up by the group due to the demands of the external environment, especially in situations where the group as a whole feels vulnerable or subordinate to the wider community of which it is a part. On the other hand, group tensions can be imported into the group then sent back out again into the environment, where they originated. If, through social learning, a value or norm is changed within the group, or a new way of approaching an issue is developed, then reflected back to the wider society, the whole community can ultimately be influenced (Smith & Berg, 1987). Conversely, if a social group has access to knowledge and resources from outside the group, the whole group benefits, learns and grows. This dynamic equilibrium where there is a free exchange of information, ideas and experience between members and the wider community is essential for a group to grow, learn and cope with external influences and internal paradoxes (Napier & Gershenfeld, 1999; Smith & Berg, 1987; Kilpatrick & Falk, 1999; Moore & Brooks, 2000).
Thus, a group’s organisational culture is developed over time through the formation of traditions, rites, rituals and relationships among individuals in the group. This type of learning occurs with others, rather than from others, and is referred to as social learning. Social learning occurs from the moment of birth, and is developed throughout a person’s life. Social learning includes the ability to work through major conflicts that arise due to differences in perspectives held by different actors. This is because social learning sets boundaries for appropriate thoughts, values, actions and behaviours. Social learning can be enormously powerful in controlling actions and in helping individuals and groups to find the common ground needed to resolve issues of importance. According to Conners & Dovers (2002) social learning implies social construction and framing of problems based on beliefs, values and social consensus. The worldview of the ‘problem-framers’ influences outcomes and can even shape relevant policies at a range of scales. If problems are framed through integrating processes drawing on a variety of individuals holding different worldviews, knowledge and experience, they are likely to lead to sustainable policy pathways (Conners & Dovers, 2002). As can be seen, social learning occurs at a range of scales including individual, group and community level learning. Learning at the level of whole societies may invoke paradigm shifts (Milbrath, 1989; Cocks, 2003).

Social learning promotes an informal, free exchange of knowledge and information, and this is critical for building the skills of individuals, social groups and communities. A learning community is more likely to be able to adapt to changing circumstances (Cocks, 2003). Developing skills and relationships to work through collective issues has been referred to in the literature as ‘human capital’ (Coleman, 1988; Cattell, 2001; Lawrence & Deagen, 2001). Team-building where there are opportunities for participants to share common problems and learn to trust each other can contribute to the accumulation of human capital (Lawrence & Deagen, 2001). Skills and talents of individuals are drawn out and shared among the group, and between different community groups for collective ‘public good’ (Kauffman, 1959 cited in Allen, 2001). In recent years, this ‘public good’ has been referred to as ‘social capital’, which is the subject of the next section.
2.6 Social capital

‘Social capital’ entered the literature in the 1980’s through Coleman’s analytical framework for social capital in educational theory (Coleman, 1988). It is a term with a myriad of meanings, laden with complex moral implications. Robert Putnam’s analogy of bowling in American society popularised the term (Putnam, 1995). Putnam identifies the existence of social capital and why contributions of social capital are fundamental to the economic and social health of a community. His main contention is that America’s social well-being is on the decline, largely due to a decline in membership of voluntary associations (Putnam, 1993, 1995, 2000).

Social capital accumulates through investing in social relationships (Scheffer et al, 2002). The essential ingredients of social capital, social values (norms), networks, and trust are learnt over many years, and even over many generations, serving as a cultural template for future generations (Putnam, 2000). This ‘social paradigm’ gives meaning to daily activities. Yet because it is hard to define, measure, see or own social capital, it tends to be undervalued. Social capital is often a by-product of other social activities, where trust, social norms and networks are transferred from one setting to another, strengthening the fabric of a community (Putnam, 2000). Trust is a key ingredient of social capital, being essential for our well-being (Cox, 1995), and a lubricant for social life, facilitating gossip and cultivating reputation (Putnam, 2000). Trust is easily lost, however, and once lost is difficult to regain Fukuyama (1995). Cox (1995) maintains that trust is lost when people are too scared to walk on the streets at night, or to use public transport or to talk to strangers. Yet in communities where people get to know each other and are actively involved in their communities, trust develops, and personal fears are diminished. Baum et al (1999) undertook surveys of 4000 residents in the western suburbs of Adelaide, to gauge the extent of volunteering within the area, and to ascertain relationships between levels of volunteering and the involvement of individuals in civic activities. Their results indicate that volunteers were more likely to believe that events occurring within their community were within their control, than those who did not volunteer (Baum et al 1999). In addition, Baum et al (1999) found that volunteers were more likely to have more informal social contacts, and to be involved in a range of social activities, than individuals who didn’t volunteer. Their study also showed that volunteers were more
likely to help and be helped by neighbours and friends, than non-volunteers. These results confirm the assertions of Donald (1997) who maintains that volunteering creates a sense of community and feelings of control, bridging gaps between individuals and the communities in which they live (Donald, 1997).

Cox (1995) and Baum et al (1999), observe that social capital can be increased through voluntary organisations where members work together to solve problems in an atmosphere of trust and tolerance. The existence of trust allows democracy to function effectively, as it enables individuals to participate freely and confidently in governance (Chaney, 2002). By adjusting social norms and values through communal trust and social ties that are built up over time, social capital may be used to diffuse potential conflicts, arriving more easily at collective solutions to local problems. Cattell (2001) agrees and believes that by understanding a community’s social context, it is possible to understand the genesis of social capital associated with it. This in turn, can lead to a deeper understanding of the social relationships among individuals and groups, and therefore help to arrive more easily at collective solutions to community problems. Factors such as the area’s history, paid and unpaid work opportunities, resources, and opportunities for citizen participation in decision-making are key elements in building relationships among community members. The characteristics of each factor determine the particular attributes of social capital within the community – attributes including trust; perceptions of safety or fear; reciprocity; patterns of mutual help and information exchange; norms and values. These characteristics also influence the stability of the population, seen as a necessary precondition for the accumulation of social capital within communities (Cattell, 2001).

According to Putnam (1993) networks and social ties are essential components of social capital, generated when individuals cooperate for mutual benefit. Understanding the nature of ties between individuals and groups can help to strengthen social capital in a variety of different areas, thereby enhancing the overall development of social capital within a community (Falk, 2000). According to Falk (2000), unifying ties between people and their social groups and communities contribute to the generation of social capital and develop the social cohesion of communities. Nevertheless, ‘bonding ties’ which unify groups will only contribute positively to social cohesion if balanced by ‘bridging ties’ linking groups and
communities externally to the broader society (Falk, 2000). Positive effects of bridging ties include on-going development of social norms, networks and trust, and an increase in knowledge and understanding of a variety of community issues such as health, employment, safety and the environment (Falk, 2000).

Literature on network analysis reveals that strong and weak ties have different effects and benefits. For example, in some instances, the formation of strong social ties built upon years of mutual trust and co-operation can become a negative form of social capital where individuals are excluded or discriminated against for not having the ‘right connections’. In such circumstances, social capital can accentuate social inequalities (Putnam, 2000). Social exclusion, often generated through dense bonding ties among ‘insiders’ that deliberately exclude ‘others’ and impede access to social capital can have negative health effects on excluded individuals (Cattell, 2001). Often the effects of social exclusion are felt by those in traditional societies, or working class areas, suffering from a lack of loose ties and few resources. On the other hand, Cattell (2001) asserts that individuals with many informal networks are less likely to suffer ill health, as these provide support, enhance self-esteem, clarify personal identity, and enable citizens to feel ‘in control’ of their lives.

Cattell (2001) explains that relationships comprised of individuals with social characteristics similar to each other foster dense support networks, whereas those comprised of dissimilar individuals tend to be much looser networks of weak ties that provide wider access to diverse resources. This supports Fukuyama’s (1999) contention that traditional societies are characterised by a lack of weak ties, and that individuals in these societies are not free to remain on the periphery of a range of social groups, but are closely connected to others in their particular social group. In this way, Fukuyama explains that traditional societies tend to be highly segmented into a number of clearly identified, self-contained social units such as villages or tribes. By contrast, contemporary societies are more likely to be comprised of individuals who have a range of loose networks linking them to a wide variety of people and resources. Such weak or ‘bridging’ ties do not constrain individuals’ activities, and do not dictate their identity. According to Fukuyama (1999), traditional societies are less likely to be innovative, pass on new ideas, or share resources than contemporary societies. However, Cattell (2001) warns that even in societies rich in
both weak and strong ties, they are no substitute for equitable distribution of resources and sound governance. Jeanrenaud (1999, p130) describes ‘social capital’ as

local capacity to exert pressure for change, resulting from greater involvement in public affairs – or a greater capacity for marginalised groups to get their voices heard.

Both Jeanrenaud (1999) and Krockenberger, Kinrade, & Thorman (2000) link the development of a sustainable and just future with the accumulation of social capital. Jeanrenaud (1999) explains that social capital involves non-tangible human resources that can help build the institutional basis for participation and the development of decentralised policies that help in community capacity-building and contribute to local sustainability.

Putnam (1993) claims that social capital is a pre-requisite for the development of effective public policy and reform in governance, and that social capital can be used by governments to strengthen democracy. Through public dialogue and deliberation, people may transcend their own narrow interests to develop a civic loyalty. Yet Baum et al (1999) warn that the presence of social capital should not be taken as a cue for governments to decrease their support for community life and activities. Rather, Baum et al (1999) point out, governments should be developing policy to enhance social capital and opportunities for social learning.

Cattell (2001) asserts that to build social capital, there needs to be some pre-existing level of social capital. Allen (2001) maintains that the accumulation of stocks of social capital can be both a consequence of, and a cause of community action. He explains that this is because social capital develops as collective action that is centred on a community issue gains momentum. At the same time, collective action is more easily attained through accumulated stocks of social capital within and between social groups (Allen, 2001).

Other authors, for example Chaney (2002) and Stone (2001) challenge the assertion that stocks of social capital are a pre-requisite for effective governance. Chaney (2002) presents the results of a study conducted in Wales that examines the role of government in creating social capital concludes that top down intervention has the
potential to provide lasting positive benefits for grassroots community groups through the ‘devolution’ of responsibility from government to the third sector. This is done through legally binding arrangements between government agencies and voluntary organisations that recognise the contributions and needs of all interested parties. Potential benefits include the creation of local social capital, and an open, revitalised, inclusive system of governance as well as unprecedented access to politicians and government officials (Chaney, 2002).

Whether or not social capital is a necessary pre-requisite for effective governance is still open to debate. However it may be accumulated, social capital can help communities to respond positively to change (Kilpatrick & Falk, 2001). Social norms that are inclusive and accepting of new people and ideas, combined with informal networking and learning among individual citizens, helps build resilient communities (Kilpatrick & Falk, 2001; Cocks, 2003).

2.6.1 Levels of social capital
Kilpatrick & Falk (2001) observe that social capital is accumulated in different ways. It should be available to any member of a social group, to be drawn upon in times of need, for the benefits of one or more individuals, or on behalf of the whole group. They describe three levels of social capital building: micro (individual), meso (community), and macro (social), levels. At the ‘micro-level social capital’, resources that are made available through social capital include both knowledge resources and identity resources (See Figure 2.2).
Knowledge resources are used to find out how to get things done, or who to contact for advice or information. This is largely achieved through social networks. Identity resources include those that facilitate the ability and willingness of citizens to act in ways that benefit both a community and its members. Identity resources are accessed through sharing norms, values and visions of what ought to be done for collective benefits. Kilpatrick & Falk (2001) argue that these social capital resources increase the capacity of a community to respond to change and are simultaneously built upon and drawn upon through interactions between individuals.

Both knowledge resources and identity resources help individuals to get to know and trust each other, and to develop personal skills and confidence. Thus, there is a dynamic relationship between human capital and social capital accumulation, and both are strengthened through social learning (Kilpatrick & Falk, 2001). The quality of each type of capital reflects the other. Knowledge and identity resources provide the scaffolding for both meso-level social capital resources and macro-level social capital resources. These are depicted below in Figure 2.3.
According to the model above, interactional infrastructure, present at the meso-level, comprises relational networks, rules, procedures, and institutional arrangements. It provides a framework or system of networks to help individuals find appropriate people, sites and opportunities for social interactions. At the meso-level, values infrastructure determines shared trust, visions, reciprocity, language, attitudes, norms and identity, and sets the parameters for community-level citizen interaction. At the macro-level, values infrastructure describes social relations at the level of laws, customs and culture that permeate throughout whole societies, and contribute to the development of institutions (Kilpatrick & Falk, 2001).

The above discussion indicates that social capital accumulates through investing in social relationships that are developed through participation in a range of social activities. As with social learning, social capital accumulation operates at a range of spatial and temporal scales. Social capital provides a ‘social paradigm’ that provides a template for different social systems. A variety of social ties are important to the accumulation of social capital. Social capital strengthens the fabric of a community, yet it is not a substitute for sound governance or social equity. It can, however, help to
build appropriate institutional arrangements necessary for the development of a sustainable and just future (Jeanrenaud, 1999; Krockenberger, Kinrade, & Thorman, 2000). Further, some authors contend that governments need to develop policy to enhance social capital (eg Baum et al, 1999; Chaney, 2002; Stone, 2001).

Whatever its genesis, social capital and other social processes including social learning can help communities to respond positively to change (Kilpatrick & Falk, 2001). Landscapes and how people live in them are becoming recognised as links to human health, well-being, recreation, work opportunities, general attitudes to life, and human- non-human relationships (Koontz, 2001; Milbrath, 1989). Natural resources are increasingly being viewed as more than just consumable items available for those that can afford them. As well, environmental issues are increasingly seen as being local rather than federal government issues (Young, 1991). These changes in awareness and attitudes in the environment are leading towards the development of sustainable local communities. Rather than occurring uniformly in time and space, Young (1991) points out that sustainable communities are evolving in an irregular and somewhat unpredictable way.

Both social capital and social learning can enhance effective governance of natural resources as potentially, citizens can work together across political boundaries to achieve collective outcomes. Social learning is influenced by amount of social capital accumulated through the relationships formed among individuals within a group and between groups of groups in the wider community. Over time things learned collectively are internalised as institutional memories, which have particular values, attitudes and norms (Berkes & Folke, 2002). These are some of the essential ingredients of social capital. These and other attributes of social capital including networking and trust are learnt over many years, serving as a cultural template for future generations (Putnam, 1993).

Both social capital and social learning create ways of adjusting social norms and values over time, so both are useful in diffusing potential conflicts, arriving more easily at collective solutions to local problems. Many authors believe that social learning and the accumulation of social capital can help groups and communities respond positively to change and move towards a sustainable future (eg Kilpatrick &
Falk, 2001; Jeanrenaud, 1999; Cocks, 2003). Both can influence whole societies, invoking paradigm shifts and contributing to the development of a collective vision of sustainability. These shared visions begin at a very local scale, but can be built on at a range of spatial and temporal scales (Cocks, 2003; Berkes & Folke, 2002).

2.7 Summary

Environmental problems have ecological, social, cultural and economic dimensions. Changes have to occur within each of these dimensions to resolve environmental problems. This chapter focuses on the social and cultural dimensions of environmental problems. Literature reviewed for this chapter asserts that there is a need to change the Dominant Social Paradigm (DSP) held by many individuals in contemporary society, to a New Environmental Paradigm (NEP), in order to overcome the major environmental issues facing society today. Through a change in the DSP, a holistic shared vision of a sustainable future may be achieved. Yet changes will only occur if people are convinced that there is a need for change. One way to change the DSP may be through the development of ecological literacy among citizens, social groups and communities. This may begin through raising the ecological consciousness among citizens, so that there is a connection between personal actions and environmental impacts. This consciousness is sometimes referred to as ‘action competence’ (Jensen & Schnack, 1997).

Literature reviewed for this chapter implies that individuals are largely shaped by their social relationships and at the same time, each individual makes unique contributions to the social groups to which they belong. For example, being a part of a social group contributes to an individual’s personal identity, and helps develop personal skills. Conversely, individuals in groups contribute to collective decision-making and problem solving. Social groups provide a vehicle for active citizen participation such as volunteering to undertake a range of community work. This unpaid work is often personally fulfilling as it can result in positive social outcomes, and develop personal skills and confidence. A community is comprised of a number of social groups which together create community identity, shape a sense of solidarity and direct citizen actions.
Volunteer groups with an environmental focus (stewardship groups) can be vehicles for raising ecological awareness within communities. They rely on volunteers to undertake a variety of environmental projects and on-ground activities. Stewardship groups have the capacity to change local environments, and restore degraded lands. The work they undertake can be enhanced through social processes such as social learning and social capital accumulation. Ecological literacy grows through social learning, a process that starts with a personal awareness of one’s social and ecological surroundings (O’Sullivan, 1999). In addition, social capital accumulates at a greater level in communities where volunteering is common (Cox, 1995; Baum et al, 1999).

The reviewed literature suggests that the processes of social capital accumulation and social learning can be used to promote inclusiveness, creativity, collective problem-solving, experimentation and flexibility within stewardship groups. They can also enhance the ability of volunteers to act as change agents. Yet these processes cannot operate effectively without permanent structures and mechanisms in place (Dovers, 2000; Rosenthal, Feiring & Lewis, 1998; Pearce, 1993). The next chapter discusses stewardship groups as part of a social mobilisation approach towards sustainability in Australia, and also examines institutional arrangements for natural resource management within Australia in general, and Queensland in particular.
Chapter Three

Governance of Australia’s natural resources

There are moments in history when the opportunity presents itself for a fundamental overhaul of existing institutions to unleash a new paradigm. We believe such a moment exists today in the management of Australia’s natural environment (WWF Australia, 2003, p2).

3.0 Introduction

Chapter Three presents an overview of the Australian situation related to the sustainability and governance of local natural resources. The literature reviewed here reflects the importance of understanding the role of individuals as volunteers in land and water management. It begins by providing a brief overview of some of the ways that sustainability is being pursued in Australia. The next section focuses on the social mobilisation pathway towards sustainability. The social mobilisation approach is largely centred on the Landcare Movement and its future role in NRM. Social mobilisation includes an understanding of the social processes discussed in Chapter Two, and some of these are discussed within the Australian context of natural resource management. Finally, a new approach for governance of natural resources in Queensland is discussed.

3.1 Visions of sustainability in contemporary Australia

Australians depend on natural resources for continued good health and well-being (Commonwealth of Australia, 2001; ABARE, 2001). Agriculture is the main industry that directly impacts upon our natural resources. Agricultural industries contribute to 20% of total export trade (Commonwealth of Australia 2002b). Increasingly however,
our natural resources are being valued for more than their productive capacity (Commonwealth of Australia, 2002b). Indeed, the image of Australia is built on many spectacular natural wonders including unique plants, animals and landscapes (Australian Bureau of Statistics, 2003c). The fact that Australia is one of 17 megadiverse countries (Australian Bureau of Statistics, 2003b), and has over 730 properties on the World Heritage List, makes it a popular destination for nature-based tourists (Australian Bureau of Statistics, 2003c).

Current statistics from the Australian Bureau of Statistics (2003a) reveal a steady increase in the number of Australians belonging to an environmental group. The Bureau reports that in 2001, 609,000 Australians were members of an environmental or stewardship group, and of these, 68,000 belonged to Landcare. As well, the level of awareness about Landcare is steadily increasing across Australia (see Figure 3.1). (Australian Bureau of Statistics, 2003a).

Ironically, despite increasing awareness of Landcare, concern for land degradation actually decreased by 5% between 1992 and 1999. Toyne & Farley (2000) contend that despite the recent massive increases in resources that have been allocated to addressing environmental degradation in Australia, serious problems persist, and action towards sustainability is generally slow.
3.2 Pathways towards sustainability in Australia

BuÈhrs & Aplin (1999) identify three pathways towards sustainability in Australia. The first of these, ‘green planning’ is essentially a ‘top down’, government initiated approach. Institutional reform aims to resolve conflicts and to work towards a ‘partnership’ approach; while social mobilisation is essentially ‘bottom-up’, arising through local needs and citizen’s actions (BuÈhrs & Aplin, 1999). In Australia, however, many of the programs fostering social mobilisation are government – initiated (Carr, 2002). BuÈhrs & Aplin (1999) comment that the green planning approach tends to be driven by bureaucracies, while institutional reform is often associated with conflicts. As the three approaches emerge through different needs and operate at different levels of governance, it is unlikely that any can achieve sustainability in isolation. BuÈhrs & Aplin (1999) maintain that in reality, each approach tends to dominate under different circumstances.

‘Green planning’ focuses on long-term approaches to sustainability through the development and implementation of goals, strategies, legislation and policies (BuÈhrs & Aplin, 1999). The most significant is arguably the National Strategy for Ecologically Sustainable Development (1992), a document covering a range of sectoral and cross-sectoral themes and commitments relating to Ecologically Sustainable Development (ESD) (Commonwealth of Australia, 1992). The ESD process has been re-invigorated in the light of the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act), guided by the 1992 National Strategy. This is the first attempt to define Commonwealth responsibilities with respect to the environment, and to integrate environmental matters between all levels of government across Australia (Commonwealth of Australia, 1999). The new Act recognises the importance of ESD principles in providing standards to enhance biodiversity and conservation, while ensuring a good standard of living for present and future generations of all Australians (Commonwealth of Australia, 1999). The Act specifies institutional arrangements between the State and the Commonwealth with respect to environmental issues, and is thus pro-active in reducing potential conflict between these levels of government (Commonwealth of Australia, 1999).
Legislation such as the EPBC Act 1999 is just one step towards institutional reform. As Conners & Dovers (2002) argue, the institutionalisation of ‘sustainability’ and its integration within governance, is a long-term project that has only just begun. Such ‘top down’ deliberate change is needed to ensure institutional reform, yet cultural beliefs about natural resources are difficult to change, and so correspondingly, the demand for institutional reform is slow, despite changes to legislation (Conners & Dovers, 2002).

Another approach towards sustainability is social mobilisation. This approach is not usually government-initiated, though many Australian governments involve local communities and stewardship groups in policy development and the implementation of sustainable development projects (Carr, 2002; BuÈhrs & Aplin, 1999). Social mobilisation relies on grassroots actions, local knowledge and experience, and community ‘ownership’ of environmental initiatives. This approach is the focus of the next section.

3.3 Social mobilisation in Australia

Australian landscapes are gradually being restored through the collective visions and labour of people involved with environmental stewardship groups centred on catchments. Most are government-initiated natural resource management programs based on integrated catchment management (ICM). This approach takes a holistic, sustainable view of an identified water catchment system and relies heavily on community involvement (Bellamy et al, 2002). The catchment itself is the key planning, management and research unit, incorporating biophysical, cultural, economic, and social issues. Over the past fifteen years governments have developed strategies for ICM, fostering partnerships with landholders, community groups and government (Ewing, Grayson & Argent, 2000).

The Landcare approach to NRM is an example of social mobilisation in Australia (BuÈhrs & Aplin, 1999). According to Higgins & Lockie (2002) the Landcare approach has struck a chord with landholders, as they seem to identify well with Landcare discourses of ‘community; ‘partnership’ and ‘local knowledge’. Cary & Webb (2000) explain that the term ‘Landcare’ has numerous meanings, and is
generally associated with land restoration. They identify three major elements of Landcare: the National Landcare Program; Community Landcare; and the Landcare Movement. These are illustrated in Figure 3.2.

**FIGURE 3.2: The three elements of Landcare**
[Source: Cary & Webb 2000]

The National Landcare Program was initiated by the Commonwealth government in the 1980s with a broad mandate to improve natural resource management throughout Australia (Lane, 2002). At the time, Landcare was seen as different, innovative and achievable (Lane, 2002). The National Landcare Program (NLP) encourages self-reliance and draws on collective values, norms and visions that endorse sustainable farming practices and address land degradation (Cary & Webb, 2000; Higgins & Lockie, 2002). The NLP is one of many programs funded through the Commonwealth Government’s NHT (Cary & Webb, 2000). The Program offers a participatory approach encouraging active participation by land holders and groups to solve local land management problems. Through the National Landcare Program, effective partnerships between government agencies, landholders, Landcare groups and others involved in the Landcare Movement have developed (BuÈhrs & Aplin, 1999). The NLP partnership approach is seen as a model for other programs with a stewardship
focus. If the program is government-initiated – i.e., a ‘top down’ form of social mobilisation, it is more likely to suffer from withdrawal of funding than partnerships and programs that are totally community-driven (Buhrs & Aplin, 1999).

As successful as it is, there are weaknesses in the National Landcare Program. In its infancy, the program focused attention on tree planting, and in particular, the Hawke Government's Plant a Billion Trees Campaign in 1990. Ironically, since that time there has been a net decrease in the overall number of trees across the continent. Reasons given for this result include increasing population, consumption, changes in technology and economic necessity (Commonwealth of Australia, 1998). Although promoted as a participatory approach to natural resource management, interest groups are not always represented accurately by the Landcare Program, and some groups and individuals are excluded altogether from the process (Lane, 2002). Lane contends that there is no current evidence to suggest the Landcare Program is a genuinely democratic form of land management. Jennings & Lockie (2002) note that often interested actors are faced with win-lose situations. Losers are often those in already marginalised social groups, lacking the capacity to participate effectively in current political arenas (Jennings & Lockie, 2002). Despite this, the official mid-term review of the NLP concluded that it had contributed to more integrated institutional arrangements for natural resource management and had increased community awareness of sustainable land and water management practices (Lane, 2002).

Community Landcare refers to the network of voluntary Landcare groups comprised of individuals working together to combat land degradation across Australia (Cary & Webb, 2000). Community Landcare activities are most commonly undertaken on private rural land and the owner may or may not be among the volunteers (Ross, Buchy & Proctor, 2002). Activities include meetings, ecological restoration, and field days where social networks are strengthened and information is exchanged. Community Landcare groups undertake a variety of activities to raise awareness and develop individual skills in dealing with land degradation problems (Ewing, 2000). Group activities transcend the rights and responsibilities of individual landholders (Ross, Buchy & Proctor, 2002). The variety of approaches to NRM undertaken by each group reflects the diversity of members as well as the range of issues and landscapes in which they operate (Ewing, 2000). According to Byron & Curtis (2002),
Community Landcare has burgeoned from a handful of concerned landholders and government agencies to around 4000 Landcare groups across Australia, involving more than 120,000 volunteers over a span of fifteen years. Community Landcare groups vary in size from a handful of neighbours tackling local issues, to much larger groups concerned with a variety of concerns (Ewing, 2000).

The Landcare Movement refers to a general land ethic among landholders and other individuals concerned with land degradation and is characterised by individuals who hold a wide range of values – from deep ecologists to land stewards, aiming to maximise sustainable productivity of agricultural land (Cary & Webb, 2000). The Movement includes individuals and members of Community Landcare, as well as a variety of other stewardship groups such as Rivercare, Dunecare and Bushcare. Community-based environmental monitoring groups such as Saltwatch and Waterwatch are also stewardship groups, with a focus on monitoring the environmental health of land and water (Ross, Buchy & Proctor, 2002). Land and water systems where the work is undertaken may be privately owned, although they are more likely to be a public resource, or to lie across several tenures such as a catchment, river or coastline (Ross, Buchy & Proctor, 2002). Elements of the Landcare Movement are represented in Figure 3.3.

FIGURE 3.3: The Landcare Movement
[Source: Cary & Webb 2000]
Cary & Webb (2000) explain that the Landcare Movement operates on four levels – each representing different aspects of ‘social mobilisation’. The smallest level is comprised of individual landholders and other members of society, represented by black dots in Figure 3.3. Individuals are connected through personal networks and the social capital that is accumulated through processes discussed in Chapter Two, and depicted in Figure 2.2 (Kilpatrick & Falk, 2001).

Through social connections, individuals find out how to get things done and who to go to for specific information. At a personal level, they develop new skills, knowledge, abilities, and confidence, all of which are needed to become active and competent citizens (Forbes, 1987). Individuals operating at this level adopt an ‘action competence’ approach to environmental problem-solving (Jensen, 2000; Jensen & Schnack, 1997). The sharing of experiences also occurs at this level, contributing to the ‘institutional memory’ of their community, a process described by Berkes & Folke (2002) that help whole communities respond to change. In summary, individuals represented by the black dots in Figure 3.3 are inter-connected through a range of networks and social processes (Cary & Webb, 2000). Networks are represented in the diagram by lines that join the dots (individuals) (Cary & Webb, 2000). Social mobilisation at this level is enhanced by the willingness of individuals to act in positive ways to benefit citizens and the local community (BuÈhrs & Aplin, 1999; Kilpatrick & Falk, 2001).

Community Landcare groups are represented in Figure 3.3 by the shaded circles (Cary & Webb, 2000). Kilpatrick & Falk (2001) contend that two major social processes occur at the level of community groups – social interactions and the development of shared values. Community groups provide a vehicle to help individuals find appropriate people, sites and opportunities for problem-solving and social interactions. Values are developed in social groups through social learning, shared trust, visions, reciprocity, language, attitudes, norms and identity, and provide a framework for community-level citizen interaction (Milbrath, 1989; Kilpatrick & Falk, 2001).

According to Heilpern, Wright & Tkachenko (2000) Community Landcare has been able to both build from existing social networks and create new ones. Social
mobilisation at this level may begin through discussions between neighbours, who may invite like-minded landholders to form a Community Landcare group (Heilpern, Wright & Tkachenko; 2000; Ewing, 2000). Over time, contacts spread to larger communities or townships or extend along a watercourse, or within a valley or catchment. Simultaneously, group members gain confidence and skills to embrace other concerns such as catchment planning, and to work collaboratively with other community groups for regional outcomes (Ewing, 2000). Care has extended from small groups restoring the land to a broader more general sense of community care (Heilpern, Wright & Tkachenko, 2000).

Finally, the Landcare Movement is the sum total of all the elements depicted within the boundaries of Figure 3.3 (Cary & Webb, 2000). At this level social relations may be determined by customs, laws, regulations and culture, and contribute to the evolution of institutions (Kilpatrick & Falk, 2001). The next section investigates the future role of the Landcare Movement across Australia.

### 3.3.1 The Future of the Landcare Movement in Australia

Toyne & Farley (2000) point out that the goal of the ‘Decade of Landcare’, which was instigated by the Commonwealth Government in 1990 through the NLP, was to achieve ESD on all Australian properties within ten years. In retrospect, this goal was overly ambitious. Yet other benefits have accrued as a result of the program. Byron & Curtis (2002) assert that the Landcare Movement has helped build the social cohesion of rural communities, and simultaneously increased the skills of individual farmers and their likelihood to adopt best management practices. Toyne & Farley (2000) observe that community norms and values have generally shifted towards sustainability through the impact of the Landcare Movement.

Williams & Sutherland (2000) contend that Landcare allows individuals to re-imagine themselves in the landscape, and create a vision of the future, with the landscape at the centre of the vision. One unexpected outcome of Landcare has been the creation of a new political force in urban areas. Landholders have been able to use the Landcare
Movement as a vehicle to voice concerns other than those centred on environmental problems (Toyne & Farley, 2000).

Despite its many successes, Higgins & Lockie (2002) argue that the enormous potential for social mobilisation provided by the Landcare Movement is constrained by a number of factors. Since 1996, funding for stewardship groups and programs has been administered under the Commonwealth’s Natural Heritage Trust (the NHT #1). The NHT provided funding for any on-ground works that were deemed to be of high priority at a regional level (Higgins & Lockie, 2002). The NHT provided over $1 billion over five years for Landcare and related programs (Toyne & Farley, 2000), yet the approach has not been overly successful.

Preparing submissions for government funding has become a specialised skill, requiring huge amounts of unpaid time and effort, and submissions are not always successful (Toyne & Farley, 2000). However, Toyne & Farley (2000) suggest that if a landholder does benefit financially from the Landcare Program, then he/she must accept the goal of sustainability and accept outside confirmation that they are making progress towards it. As well, the enthusiasm of Landcare members has been reduced by the scrutiny of government programs such as NHT #1 that fund the National Landcare Program across Australia (Higgins & Lockie, 2002). In some instances, this scrutiny has led to funding cuts and raised expectations about measurable outcomes for Landcare.

The National Landcare Program is sometimes seen as an abrogation of government responsibility. This is especially apparent at a State level, where provision for agricultural support has been reduced or withdrawn, to be replaced by Landcare, a program prone to funding cuts (Toyne & Farley, 2000; Dovers, 2000). Dovers (2000) believes the general lack of uncertainty over annual funding has contributed to negative attitudes and dampened enthusiasm for Landcare and similar programs. Added to the problems outlined above, the NHT #1 program has been criticised for focusing on piece-meal, on-ground actions at the expense of regional outcomes (Paton et al, 2003).
Despite the positive participation by many Australian farmers in Landcare, many others are still not willing to become involved. As well, there is a noticeable lack of involvement in Landcare by indigenous Australians, and Australian of non-English speaking backgrounds (Higgins & Lockie, 2002). Toyne & Farley (2000) stress the importance of indigenous people, issues and lands as being central to national and regional strategies. A cultural renaissance embracing Aboriginal knowledge and customs, combined with political changes facilitating regional governance of natural resources are urgently needed across the land (Flannery, 1994).

Evidence suggests that when Europeans arrived in Australia, Aboriginal people were generally living within their ecological means (Flannery, 1994). The strong social ties and obligations between different groups of Aboriginal people meant that scarce resources were shared among people in times of hardship. They understood their relationship with the land (Flannery, 1994). As people who flourished in our inhospitable continent for thousands of years, Aboriginal knowledge of Australian ecosystems is second to none (Yunupingu, 1997). As Flannery (1994) asserts:

> These cultures are the result of over 40 000 years of coadaptation with Australian ecosystems. The experience and knowledge encompassed therein is perhaps the single greatest resource that Australians living today possess, for without it we have no precedence; no guide as to how humans can survive long-term in our strange land (p271).

Thus, indigenous Australians who still retain traditional knowledge of the land are valuable assets to natural resource management (Flannery, 1994). However, as Berkes & Folke (2002) emphasise, there is no suggestion that resource managers should be ‘….turning our back to science to celebrate the noble savage’. Instead they suggest that

> …..we are acknowledging the existence of a ‘people’s science’ as an antidote to excessively centralised and bureaucratised resource management science (p.121).

Unfortunately, indigenous communities are often plagued by poor living conditions, low health standards and lack of educational opportunities that hamper participation in effective natural resource management (Commonwealth of Australia, 2001). New forms of governance based on an understanding of how all interested individuals might work together are needed to secure a sustainable future, with a reasonable
quality of life for everyone. With the help of Australian Aboriginal people a powerful collective vision of sustainability could be achieved for this land.

At the present time, the success of the Landcare Movement is viewed by many as inconsistent, as it is often at the mercy of sporadic funding and unpredictable weather including drought. The ability of the Landcare Movement to keep going also varies according to ambient economic circumstances. In addition, the Movement has to contend with different community expectations; new legislation; and depends very strongly on the effectiveness of social relationships and networks within communities (Paton et al, 2003). In the past, Landcare has relied heavily on individual champions (who occasionally suffer ‘burnout’). Byron, Curtis & Lockwood (2001) contend that ‘burnout’ is a gradual process involving personal exhaustion, negative emotions, and a loss of professional effectiveness and accomplishment. They claim that whole organisations may suffer if individual volunteers show signs of burnout.

Despite numerous problems, management of Australia’s natural resources is moving forward. The new National Action Plan for Salinity and Water Quality (NAP) and the NHT Extension (NHT #2) that are the major funding bodies for environmental stewardship groups are concerned with regional planning processes that include integrated, long-term outcomes (Paton et al, 2003). Responsibility for land management is increasingly being shared by government and citizens, using local knowledge and a range of new participatory processes for involving all stakeholders are being implemented. The success of the new regional arrangements will depend on how the NAP unfolds on the ground. If regional planning is seen as an abrogation of government responsibility by key stakeholders, the process could fail. If however, stakeholders adopt the attitude that the new arrangements are a flexible learning experience, where ‘learning by doing’ is promoted and well-resourced with secure funding, and where all stakeholders are treated with respect, regionalisation could work. In addition, regional bodies need to continue in their role as implementing both government policy and on-ground activities (Paton et al, 2003).

planning; consideration of the spatial scale of management issues and responses; partnerships across a variety of stakeholders; adequate resources provided by each level of government; shared regional vision; a focus on pragmatic outcomes and cost-effective delivery using the best available information; and finally, an emphasis on opportunistic management promoting common property resource stewardship. Each element would include evaluation and monitoring wherever practicable (Commonwealth of Australia, 2002c).

Oveido & Brown (1999) predict that over the next one hundred years a variety of collaborative agreements between protected area agencies, non-government organisations, local communities and other local actors will be created around the world to manage local natural resources. At the same time, the role of centralised government agencies will decrease, progressively transferring authority to local entities, resulting in a system that is more sensitive to social equity and local sustainable development. To allow these changes to transpire, Oviedo & Brown (1999) predict that a social contract will be established…

….through which the entire society can commit itself to participating in the shared mission of protecting its natural and cultural heritage (p103).

The key to the success of the social contract lies in encouraging, rather than compelling, citizen participation, while at the same time providing ample opportunities for citizens to be included in decision-making. Some Australian governments actively use suasive measures including public awareness campaigns to put pressure on resource users to change their behaviour. As compliance with suasive measures is voluntary, it may not be effective if the perceived benefits are minimal (ABARE, 2001). As well, public awareness campaigns relating to natural resource management need to be based on accurate and reliable information linking causes and effects of environmental damage, and be seen to provide tangible benefits for all stakeholders (ABARE, 2001; Jensen, 2000; Jensen & Schnack, 1997). Frequently information is not easy to acquire, especially in situations where impacts are caused by diffuse sources. Tangible benefits are often difficult to obtain (ABARE, 2001). BuÈhrs & Aplin (1999) point out that even if mechanisms for public participation in natural resource management programs is undertaken willingly and consciously, genuine citizen involvement in natural resource management is not always possible.
For example, in 2002, a group of prominent Australian scientist met to operationalise a new paradigm, centred on ecosystems-based management. They called themselves the ‘Wentworth Group’ and came together because of a shared belief in a new vision of sustainability for Australia (WWF Australia, 2003). They claim:

There are moments in history when the opportunity presents itself for a fundamental overhaul of existing institutions to unleash a new paradigm. We believe such a moment exists today in the management of Australia’s natural environment (WWF Australia, 2003, p2).

The Wentworth Group asserts that many Australian landholders want to ‘do the right thing’ but are hampered by inflexible and inefficient institutional arrangements. The existing institutional arrangements often fail to take into account the enormous efforts that many farmers and other volunteers make in their contributions to natural resource management (WWF Australia, 2003). As Higgins & Lockie (2002) argue, resource management problems are largely social problems, so a collective approach may be more effective than efforts by individual farmers working in isolation. They point out that this approach is a form of governance, requiring particular levels of social capacity to respond effectively. To contribute to a sustainable future, community-government partnerships need to create flexible institutional arrangements, allowing for free exchange of values, experiences and knowledge over time so that communities can adapt to changing environmental circumstances (Berkes & Folke, 2002; Oveido & Brown, 1999; BuÈhrs & Aplin, 1999). As well, Amalric (1999) suggests that effective co-ordination between social groups and interested citizens acting at the national and international level is needed for sustainable local communities. The following discussion focuses on changing institutional arrangements for natural resource management in Queensland.
3.4 Institutional arrangements for catchment management in Queensland

In Queensland there are separate bodies concerned with vegetation management, water allocation and catchment management (Bellamy et al, 2002). Although the State has primary responsibility for natural resource management, a variety of legislation, planning processes, mandates, and management agencies, all compel stakeholders to participate in a variety of integrated catchment management programmes along the coast of Queensland (Jennings & Lockie, 2002). As a result, many citizens and members of stewardship groups feel unable to commit time and resources to participating every time (Jennings & Lockie 2002). Recent efforts have been made to address some of these issues.

In 2002 the Queensland Department of Natural Resources and Mines (QDNR& M) reviewed ministerial advisory arrangements for natural resource management (State of Queensland, 2003a). In 2003, the Queensland Government agreed to a new framework based on the Commonwealth Government’s agenda where community groups are asked to assume responsibility for planning, funding and implementation of regional natural resource management plans. The agenda is driven by funding programs such as the National Action Plan for Salinity and Water Quality and Natural Heritage Trust #2 (State of Queensland, 2003c). Also in 2003, the State of Queensland produced a Report making recommendations regarding the need for a state-wide organisation to represent volunteer stewardship groups and to establish connections with other state-level organisations (State of Queensland, 2003c). Group members would be geographically spread across the State. Potential roles of the organisation include strategic direction, support (eg administration, training, field days), lobbying, networking, promotion and communication.

The new organisation would have a code of ethics, transparent processes, encourage two way communications and develop partnerships with a variety of key organisations (State of Queensland, 2003c). Although recent discourses around ‘partnerships’ and ‘participation’ within NRM have been interpreted by some as abrogation of social responsibility, Higgins & Lockie (2002) assert that this approach is influential in
changing land management practices. They refer to this approach as ‘hybrid governance’ - an assemblage of rules that emphasise the social causes and consequences of land management practices (Higgins & Lockie, 2002).

‘Hybrid governance’ appears to be working well in the state of New South Wales. Hillman, Aplin & Brierley (2003) used a case-study approach to investigate current arrangements for catchment management in New South Wales since the implementation of the *NSW Water Management Act 2000*. They conclude that adaptive management, the accumulation of social capital, and consensus in decision-making were key ingredients to the development of genuine public participation in river management. These findings reflect Röling & Wagemakers (1998) assertion that the transition to sustainable agriculture is essentially a collective process. Röling & Wagemakers (1998) believe that the development of sustainable agricultural ecosystems will only be attained if seen as a multi-dimensional domain of social, ecological, cultural, political and economic perspectives requiring flexibility and input from a range of interest groups and individuals. Such a partnership approach uses a combination of bottom-up (community-led) and top-down (government-led) strategies to involve members of grassroots groups in the governance of local natural resources (Carr, 2002; Bellamy et al, 2002; Arnstein, 1969). Such members would be able to genuinely influence local level decision-making.

### 3.5 Summary

Australia’s natural resources provide ecological, economic, social and cultural benefits. Increasingly, Australians are joining environmental groups for a variety of reasons, including perceived social benefits. These stewardship groups are gradually transforming the Australian landscape. This ‘social mobilisation’ approach towards sustainability is largely a community-driven, grass-roots approach, although it has been facilitated through both green planning and institutional reform. The green planning approach to sustainability is being achieved through a variety of legislation and policies that originate from international treaties and conventions. Social mobilisation in Australia is best illustrated through the Landcare Movement. The National Landcare Program is a government-driven program that encourages community participation in natural resource management. Community Landcare
refers specifically to Landcare groups, while the Landcare Movement encompasses Community Landcare, the National Landcare Program, and all other stewardship groups and individuals who focus on land restoration and management.

Benefits of the Landcare Movement include the contributions that it makes to the social cohesion of rural communities; improving the skills of individual farmers and other volunteers; and providing a political platform for land managers (Byron & Curtis, 2002; Toyne & Farley, 2000). A major barrier facing the Landcare Movement is the sporadic and unpredictable funding for projects and group co-ordinators (Higgins & Lockie, 2002; Toyne & Farley, 2000; Dovers, 2000). Another barrier for participation in the Landcare Movement is the perception that the whole Landcare Program is an abrogation of government responsibility. Other reasons why people do not participate in stewardship groups include the economic hardships faced by those living in rural areas, especially in times of drought. In some situations, people who were once fully committed to the Landcare Movement have withdrawn their services, partly due to community expectations and partly due to ‘burnout’ (Paton et al, 2003). As well, indigenous people are not well represented in Landcare or other stewardship groups, yet their ecological knowledge is increasingly acknowledged as being central to natural resource management (Higgins & Lockie, 2002; Toyne & Farley, 2000).

Despite these problems, new institutional arrangements for land management across Australia provide hope for the future. In Queensland, new regional arrangements will allow the responsibility for land management to be shared among community members and government. A new state-wide organisation representing stewardship groups would provide strategic direction, support for administration, on-ground work and political lobbying. This new organisation would focus on networking and the development of partnerships with key organisations (State of Queensland, 2003c). A partnership approach including the provision of social contracts and appropriate institutional arrangements is a promising way to achieve goals for local level sustainability (Stoll-Kleeman & O’Riordan, 2002; Oveido & Brown, 1999).
Chapter Four

Communities and ecosystem management

Resource management and sustainability problems are typically systems problems in which it is rarely possible to consider social systems and ecological systems as separate entities (Berkes & Folke, 2002, p112).

4.0 Introduction

Chapter Four draws together aspects of the literature review, and then leads the thesis into the next stage of the study, that is, the research phase. It concludes with the presentation of a conceptual model that ties different aspects of the literature review together, and provides direction for the research approach.

The literature review began in Chapter Two, which explained that there is an urgent need for change to ensure a sustainable future for the planet. It examined the role of social processes such as social learning and social capital in shaping attitudes, values and norms in social groups and at a community level. The literature reviewed in Chapter Two indicated that these social processes influence and enhance governance of local natural resources, through the work of volunteers in stewardship groups. Both social learning and social capital operate on a number of spatial and temporal scales, and at a personal, group and community level. These processes can help voluntary groups develop ecological literacy, and to develop a collective vision of a sustainable future. These attributes facilitate positive responses to environmental changes.

Chapter Three focused on pathways to sustainability in Australia, and in particular, the pathway of social mobilisation through stewardship groups that comprise the Landcare Movement. Different pathways towards sustainability have the same general
goal of changing human behaviour so that options for the future may remain viable (BuÈhrs & Aplin. 1999).

The reviewed literature in Chapter Three implies that partnerships are a positive approach to local level natural resource management (Stoll-Kleeman & O’Riordan, 2002; Oveido & Brown, 1999). Partnerships may be enhanced through a thorough understanding of the actions and experiences of different individuals with respect to local level governance. This deeper understanding may in turn lead to a clearer picture of how sustainability and resilience in local communities can be strengthened. It may also help to answer some questions regarding catchment volunteering. For example, what is the relationship between active participation in stewardship groups, local governance of natural resources, and the development of sustainable, resilient communities? If stewardship involves active protection and/or restoration of natural systems by people who give their time voluntarily (Donald, 1997), can stewardship groups also be influential in governance? This is important to assess, as more and more people across Australia are becoming involved in stewardship groups (Byron & Curtis, 2002; Dovers, 2000), these groups could be a powerful political force.

One way to harness the enthusiasm and local knowledge held by people in stewardship groups is through an approach to natural resource management known as ‘ecosystems-based management’ (Pirot, Meynell & Elder, 2000). This is the topic of the first section of Chapter Four. The chapter continues by integrating social processes and ecological approaches to environmental management through Holling’s adaptive cycle and the metaphor of panarchy. This approach builds on principles of ecosystems-based management to nurture appropriate social responses to environmental change (Holling, Gunderson & Ludwig, 2002). The final section of this chapter presents the conceptual framework for the research.
4.1 Ecosystems-based management

This section examines the role of people and communities in contributing to natural resource management, and in particular, focuses on ecosystems-based management. This approach promotes community involvement in natural resource management (Pirot, Meynell & Elder, 2000). It begins by presenting an overview of traditional resource management approaches, then moves to ecosystems-based management.

Traditional scientists such as zoologists, botanists and geologists generally fit within the Dominant Social Paradigm (DSP). They usually study aspects of ecosystems in isolation from each other, fragmenting an overall understanding of the biosphere. Lee (1993) observes that in trying to build a whole picture of an ecosystem, management reconstitutes fragmented information into a well-coordinated, smoothly operating project within defined boundaries. Ecosystem boundaries are human constructs, developed for the purpose of studying discrete parcels of the earth. The researcher sets the boundaries, according to the questions being asked. This approach Lee (1993) contends, is bounded by human rationality, created, up-dated and used by humans (both managers and stakeholders) in a confined manner, to provide an answer that is a product of this ‘bounded rationality’. Thus an understanding of ecosystems is often fragmented, failing to take into account the influence of adjacent systems, or the human activities undertaken in them. Because the boundaries are artificial, the area under consideration will influence and be influenced by nearby systems (Pirot, Meynell & Elder, 2000). When trying to understand large scale, ecosystem level problems, a traditional scientific approach is often too narrow (Lee, 1993; Pirot, Meynell & Elder, 2000; Scheffer et al, 2002).

Yet scientific understanding of people and ecosystems is changing. For example, ecologists and sociologists are beginning to realise that our previous concept of nature and society as containing systems moving towards equilibrium does not always hold true (Folke et al 2002). In reality ecosystems have complex non-linear relations between components that are constantly undergoing change, facing uncertainty from a range of events causing stress and shock (Folke et al 2002). Human and natural systems generally tend to move or change within ‘self-reinforcing’ boundaries or mechanisms, adapting to changes as they occur (Walker et al, 2002; Folke et al,
The challenge for people today is to use natural resources in ways that allow the ‘self-reinforcing’ mechanisms to operate, so that ecological integrity and resilience can be maintained. To meet this challenge ecologists are beginning to include humans in ecological studies, valuing local knowledge and citizen participation in natural resource management.

Such conceptual shifts characterise an emerging understanding of people as integral to complex adaptive ecosystems (Berkes & Folke, 2002). This understanding is fundamental to a relatively new approach to resolving environmental issues, known as ecosystems-based management (Pirot, Meynell & Elder, 2000). Ecosystems-based management is an approach to managing local natural resources that relies on active community participation. It also relies on the ecological knowledge held by local residents, and the willingness for individuals to document and share this knowledge in ways that develop the ecological literacy of the whole community (Pirot, Meynell & Elder, 2000). Olsson & Folke (2001) argue that ecological knowledge is a critical link between social and ecological systems (see Figure 4.1).

**FIGURE 4.1 Conceptual framework for analysis of linked social-ecological systems**
[Source: adapted from Berkes & Folke, 2002, p124]
Berkes & Folke (2002) explain that the left-hand side of the diagram represents nested ecosystems, eg the smallest shaded area might represent the drainage basin of a river, the middle oval could be the catchment in which the river lies, and the largest oval could represent the whole biogeographic area in which the catchment is found. The right-hand side represents the management practices adopted by different groups at different scales. Links between institutions and ecosystems are provided through ecological knowledge. It is up to the different management regimes to interpret and respond to this knowledge wisely and flexibly to ensure ecosystem goods and services are maintained.

Olsson & Folke (2001) argue that local resource users are intrinsically linked to global resource use, and that site-specific ecological knowledge (shaped through institutional memory) can be used to establish flexible co-management systems. Such systems are characterised by local resource users working in collaboration with government agencies, educational institutions and other key stakeholders. In this way, local ecological knowledge is enhanced by other forms of knowledge, furthering a global understanding of natural resource management.

This cross-scale adaptive management approach already exists in many places around the world, although it’s existence may not be recognised (Olsson & Folke, 2001). For example, Olsson & Folke (2001) found that in their study of natural resource management in a Swedish catchment, multiple scales of institutional arrangements existed in relation to crayfish management. They found that municipalities and local fishing groups set the rules about crayfishing, but it was the existence of national rules that enabled the fishing associations to be established in the first place. In their study, local citizens needed to form fishing associations to effectively respond to a site-specific environmental crisis (acidification of the Lake). These groups later evolved into organisations concerned with broader catchment issues. Thus, the study found that multi-layered systems of governance were effectively linked across different scales, enabling a variety of responses to be triggered in times of uncertainty and change (Olsson & Folke, 2001).

According to Olsson & Folke (2001) this is not unusual, but the perception of what happens around the world is often different. They describe this situation as a
‘perception gap’, as resource managers (such as government employees) may neglect local interest groups and the knowledge and experiences that they hold. Furthermore, they may fail to recognise the connections that these groups have with other social groups around the world.

The importance of ecosystems-based management and ecological literacy in utilising natural resources sustainability has been articulated by several other authors, including O’Sullivan (1999); Thomashow (2002); Berkes & Folke (2002); Cocks (2003); and Holling, Gunderson & Ludwig (2002). Ecosystems provide a wealth of resources that people utilise directly and indirectly, several times a day. These have become known as ‘ecosystem goods and services’, which involves….

….transforming a set of natural assets-soil, plants and animals, air and water-into things that we value including provision of clean and pure water; sustained supply of plant nutrients; maintenance of a liveable climate; and clean, breathable atmosphere (Commonwealth of Australia 2002c).

Ecosystem goods and services are subject to a range of threats and losses, depending on how they are managed (Walker et al, 2002). Ecosystem-based management focuses on the importance of ecosystem services, and sets limits on rates of human exploitation of these services (Pirot, Meynell & Elder, 2000). An important principle relating to ecosystems-based management is that the structure and functional integrity of the system is maintained, while goods and services are used sustainably (see Figure 4.2). Sustainability includes the ability of the system to keep functioning when disturbed, or for the system to be able to reorganise itself, or recuperate if a particularly large disturbance or perturbation occurs (Walker et al, 2002).
Thus, ecosystem-based management focuses on human activities within ecosystems. It is an interdisciplinary, holistic approach to natural resource management, recognising that all components of a landscape are interrelated (Carr & Halvorsen, 2001). It includes a detailed inventory of natural and cultural resources, social and environmental interrelationships, productivity, biomass and ecological processes, within the boundaries of a defined ‘ecosystem’. An ecosystem-based approach involves local communities in decisions regarding the use of natural resources (Pirot, Meynell & Elder, 2000). Stoll-Kleeman & O’Riordan (2002) state that sharing knowledge and understanding of issues are critical to the sustainability of local natural resources. They acknowledge that all stakeholders have different knowledge and perspectives (beliefs) about environmental problems and their management, and so there is no single ‘correct’ understanding. Sound ecological knowledge, traditions and customs are necessary to begin a detailed inventory of local natural resources, but success depends on the extent to which local communities and others understand and act on ecosystem changes (Pirot, Meynell & Elder, 2000; Berkes & Folke, 2002; Jensen, 2000). ‘Local ownership’ of management plans is critical to their successful implementation (Pirot, Meynell & Elder, 2000).
As the foregoing suggests, an ecosystems-based management takes an ecological perspective of the ways in which people and nature operate. Ecosystems-based management considers scales from short-term microscopic interactions to global geomorphologic processes occurring over millennia (Cocks, 2003). Holling, Gunderson & Ludwig (2002) claim there is a need to focus on the paradoxes of change and persistence; stability and instability; and predictability and unpredictability in ecosystems to understand how they function. Ecological change occurs on many levels, and different ecosystems adapt in different ways to change.

One basic premise of ecology is that ecosystems are in a constant state of flux - they are dynamic, changing entities, regardless of human intervention. Natural changes in systems occur sporadically, and in between are varying periods of constancy (Holling, Gunderson & Ludwig, 2002). Understanding the dynamics of change and persistence is critical to understanding ecosystems and the role of people in ecosystems (Pirot, Meynell & Elder, 2000). Most ecosystems change in response to fluctuations in its environment, while persistent ecosystems only changes in response to major perturbations (Cocks, 2003). This ability is termed ‘resilience’ (Walker et al, 2002). Resilience includes the ability of a system to withstand ‘stress’; the degree to which a system can keep functioning while recovering from shock; and the degree to which it can adapt to changing circumstances (Walker et al, 2002; Folke et al, 2002). Most ecosystems have some capacity to absorb stresses and shocks and are capable of self-organising and ‘bouncing back’ after an event that causes change (Folke et al, 2002). Resilient systems embrace change as opportunities for innovation, creativity and renewal. If a system loses resilience it becomes vulnerable, where even small changes can be devastating (Folke et al, 2002).

Folke et al (2002) maintain that humans erode resilience, increasing economic and social vulnerability. Further they argue that by rigidly controlling the natural processes of change in landscapes so as to maximise human consumption patterns, many systems have become vulnerable. To maintain the resilience of a system, a more adaptive approach based on flexible institutional arrangements is needed. Thus managing for resilience enhances sustainability in unpredictable environments, as change and surprise are expected and welcomed, rather than feared or ignored (Folke et al, 2002). In addition, there are several ways that an ecosystem can self-organise...
after change has occurred, leading to several scenarios or management options (Folke et al, 2002). Some of these options may include options for governance of local natural resources, including the establishment of stewardship groups and programs.

The next section of the literature review is concerned with a newly emerging theory that has been developed from an ecological perspective, to try to predict triggers that may cause an extreme event to occur. This new theory also aims to replicate the attributes of resilient systems and communities that are capable of adapting well to changing circumstances, so that less robust systems and communities may be sustained into the future (Gunderson & Holling, 2002).

4.2  Social processes and the adaptive cycle

In trying to understand the complexity of human-nature interactions, a group of ecologists and other scientists came together to develop a theory to ‘identify how economic growth and human development depend upon joint attributes of ecosystems and institutions’ (Gunderson & Holling, 2002, p. xii). The scientists are part of a global network, The Resilience Alliance, who recognise that sustainability is the result of a myriad of interactions between people and the ecosystems that they inhabit, resulting in a synergy that is yet to be fully understood. The scientists insist that to understand the relationship between human and ecological systems, environmental problems need to be placed in the appropriate temporal and spatial scales, and the economic, social, and cultural contexts of the problem need to be considered (Holling, Gunderson & Ludwig, 2002). A ‘resilience management’ approach to natural resource management uses the theory of ‘adaptive change’ or panarchy to enhance the development of resilience in systems. There are two main aims of ‘resilience management’. The first is to prevent systems from moving to states that reduce options for the future. The second is to nurture aspects of a system that move it towards renewal and reorganisation following large disturbances. Holling, Gunderson & Ludwig (2002) build on principles of ecosystems-based management and Holling’s model of the adaptive cycle (Holling, 1986) to develop a theory to understand the implications of today’s intense human activities on the future of the planet.
4.2.1 Holling’s ‘adaptive cycle’

According to this model, ecosystems cycle through four phases: rapid growth, conservation, collapse and re-organisation. Time flows unevenly through each phase. In ecology, r-strategists are species that grow and reproduce quickly and disperse widely, rapidly colonising newly disturbed areas. By contrast, K-strategists are slow to reach maturity and reproduce slowly and sparingly. They have limited dispersal ability, and flourish in places where resource partitioning among different species is common (Holling, 1986). R-strategists belong to the first phase of the model, known as the ‘exploitation’ or ‘r-phase’. K-strategists belong to the second phase – the ‘conservation’ or ‘K-phase’. Progression from the r-phase to the K-phase occurs slowly and is depicted in Figure 4.3.

![Figure 4.3: From exploitation to conservation](source: Holling, 1986)

The third phase, release occurs abruptly when biomass and nutrients are suddenly transformed by events such as fire, cyclones, droughts, insect plagues or over-grazing. This is represented in Figure 4.4. Although the event is destructive, it is also creative, as new opportunities become available. Holling refers to this as the ‘omega’ or ‘Ω-phase’.
The final phase, illustrated in Figure 4.5, is reorganisation - known as the ‘alpha’ or ‘(α) -phase’.

This is a time when ecosystem boundaries are more fluid, and transient species may invade, due to the previous destructive phase. In this time, an ecosystem species composition may change significantly, not only due to immigration and emigration, but also through germination of seed banks and the growth of previously suppressed vegetation (Holling 1986). Disturbed systems move quickly from reorganisation back to exploitation. Chance events can influence the way in which a system reorganises itself into a new type of organisation. It will not necessarily resemble the old system, and so it is difficult to predict what will form. A natural capital of nutrients and
biomass accumulates during the slow transition from exploitation to conservation. As stability and connectedness within the ecosystem increases, some species become dominant, due to competition. The landscape becomes ‘patchy’ with pockets of high species diversity. At this stage, there is potential for a variety of ecosystems and futures to materialise (Holling, 1986).

Researchers such as Holling (2000), Holling, Gunderson & Ludwig (2002), Scheffer et al (2002), and Holling & Gunderson (2002), have used the adaptive cycle as a metaphor to develop a theory to interpret people as an integral part of ecosystems. Although many have warned against making direct comparisons between human and non-human systems, there are analogies to be made (Cocks, 2003). Holling, Gunderson & Ludwig (2002, p5) describe their theory:

The cross-scale, interdisciplinary, and dynamic nature of the theory has lead us to coin the term panarchy for it. Its essential focus is to rationalise the interplay between change and persistence, between the predictable and the unpredictable. Thus, we drew upon the Greek god Pan to capture an image of unpredictable change and upon notions of hierarchies across scales to represent structures that sustain experiments, test results, and allow adaptive evolution.

We start the search for sufficient theory by turning to examples of interactions between people and nature at regional scales. There we see patterns of change that are similar to the more recent global ones – but examples where there has been more history of response.

Holling, Gunderson & Ludwig (2002) use the idea of panarchy to examine the ways in which systems influence each other, to gain a deeper understanding of why some ecosystems and human communities can cope with stress more effectively than others. Panarchy recognises that similar cross-scale interactions occur in human systems, ranging from individual to community and broader societal scales, and from daily interactions to those replicated and modified over several generations (Holling, Gunderson & Ludwig, 2002). Panarchy is a hierarchical structure in which systems of nature and people are connected in never-ending transformational cycles of growth, accumulation, restructuring, and renewal – a system of change and stability. The concept of ‘nested hierarchies’ is used to explain that large complex systems are the consequence of a smaller number of controlling processes (Holling, 2000; Holling, Gunderson & Ludwig, 2002). By understanding the relationships among social and environmental issues at the appropriate scale, it may be possible to predict specific points to foster sustainability within a system (Holling, Gunderson & Ludwig, 2002).
Applying a model such as the adaptive cycle could provide a way to promote the adaptive capacity of social systems. The cycle may also be applied to interpret the accumulated impact of changes leading to a whole paradigm shift, for example a change to a New Environmental Paradigm. For example, the reviewed literature suggests that social learning operates at a number of scales, from families, social groups, communities, and whole societies, and that the rate of learning varies in each situation, and at each scale. Kilpatrick & Falk (2001) argue that social capital also operates at a number of levels, including social interactions, infrastructure, geographic scales and time scales. Pearce (1993) contends that some social groups deliberately advocate large-scale, rapid social changes, while others consist of more formal structures, where social change occurs incrementally and slowly. The adaptive cycle may help to gain a deeper understanding of social processes and the scales at which they operate, and may be able to pinpoint factors leading to local level sustainability.

The reviewed literature suggests that evidence of a wide-spread paradigm shift is becoming apparent, as changing community values, knowledge and attitudes are reflected in current decisions being made about the use of local natural resources. Yet it is not known if there are certain critical levels of social learning and social capital operating at different scales to effect these changes. What institutional arrangements are satisfactory for sound governance of local natural resources? What other social arrangements might be needed? The way the adaptive cycle might be applied to social systems is illustrated in Figure 4.6.
α – innovation, renewal, social transformation
γ – adaptation, learning, experimentation, risk takers
K – many niches, stable, bureaucratic
Ω – creative destruction, increase in uncertainties

From Ω to α rapid changes occur
From γ to K – social capital, social learning – slow process
as K plateaus, resilience decreases – inflexible & brittle
From Ω to K rapid changes
From α to γ changes begin to slow, cycle starts again

FIGURE 4.6: Social processes and the adaptive cycle

The ‘mobilised’ or alpha (α) phase of the cycle
Holling & Gunderson (2002) see the alpha (α) phase as the beginning of the cycle. It begins a process of reorganisation allowing for growth, resource accumulation and storage. This stage may also be interpreted as an important step towards community awareness of a potential problem. Folke et al (2002) explain that social learning through recognition and understanding of a problem can help mobilise groups and individuals who seek solutions to the problem (ie from α to γ). Both resilience and the potential for future development are high, but connectedness is low, and internal regulation is weak. These conditions are conducive to risk-taking and experimentation, and while many experiments may fail, those that succeed will sow the seeds for change (Holling & Gunderson, 2002).

The ‘polarised’ or release (γ) phase of the cycle
In this part of the graph resilience remains high and innovators and producers of new products see opportunities to capture new markets. Groups and individuals have evolved from risk takers, opportunists and pioneers (Holling & Gunderson, 2002). Yet these groups and individuals remain unconnected, and may have clearly polarised
views of a particular issue, adhering to strongly held worldviews (Scheffer et al, 2002). They may have no intention of changing their views, and may not even recognise that certain problems exist. Yet the r-phase also represents communities rich in cultural and social diversity (Cocks, 2003), and although their cultures may dictate opposing worldviews, the potential for collective problem-solving is enhanced through diversity, if different groups and individuals choose to work together.

From r to K
The progression from r to K begins as ‘winners’ and entrepreneurs expand and the potential from the resources they have acquired also expands (Holling & Gunderson, 2002). ‘Connectedness’ between different entities also increases, as subsets of larger groups form mutual relationships and develop ‘self-help’ strategies to take advantage of changing circumstances (Holling & Gunderson, 2002). At the same time, polarised individuals and groups become more willing to learn about issues that may initially divide a community, thus collective ideas begin to change and a ‘middle ground’ forms. The middle ground takes time to establish, and is accomplished through processes such as social learning and the accumulation of social capital (Scheffer et al, 2002). Potential solutions begin to emerge from r to K. For example, within an economic or social system, the accumulating potential that is building up during the transition from the ‘r-phase’ to the ‘K-phase’ of the cycle could be from the skills, networks, and mutual trust that are developing (Scheffer et al, 2002).

The ‘institutionalised’ or conservation (K) phase of the cycle
From r to K, as social capital continues to accumulate through the development of different social ties, institutionalising of agreements or solutions regarding problems begins to occur. Folke et al (2002) point out that if some of the social ties are weak (for example bridging ties) and problem-solving is done in an isolated, segregated manner, the institutionalisation of the problem may be delayed. As the system moves towards the K-phase, connectivity between entities and groups increase to the point where the system becomes rigid, predictable, and less driven by external forces (Holling & Gunderson, 2002). Within the economic arena, it becomes increasingly difficult for new actors to enter existing markets, or for innovative ideas to be adopted. Organisations look at ways of cost-cutting and streamlining their operations in an increasingly competitive marketplace (Holling & Gunderson, 2002). On a
broader social scale, when there are too many social structures operating at the same time, the result is paralysis, as information becomes lost in a mire of social norms and hierarchies (Cocks, 2003). At this point, social systems become vulnerable.

**From K to Ω, then back to α**

According to Holling & Gunderson (2002) the ‘scattered’ or omega or (Ω) phase represents the end of the cycle. The shift from K to Ω represents a collapse in the system. In a social system this could be the loss of workers in a large bureaucracy in an effort to cut costs, or a major loss of funding to a community group. When these events occur, social ties are often lost or diminished, and institutional arrangements tend to break down. The section from Ω to α represents a sudden change to uncertainty (Holling & Gunderson, 2002). New collaborations and relationships develop in unexpected ways. The cycle begins again, yet not completely from scratch. Lessons learnt and remembered from the previous cycle are re-interpreted and incorporated into the memories and experiences of different actors, to be utilised when needed in the new α phase (Holling, Gunderson & Peterson, 2002).

Occasionally collapse is deliberately instigated by individuals within institutions, to actively initiate change. An effective leader is one that knows when to evoke change for successful natural resource management outcomes (Folke, Colding & Berkes, 2003). Managers may intervene in other ways too. For example, they may deliberately slow down responses to change; seek diversity; or nurture ecological literacy to enhance the renewal and re-organisation of institutional arrangements (Folke, Colding & Berkes, 2003). These actions are shown in Figure 4.7.
FIGURE 4.7: Management practices of the backloop of the adaptive renewal cycle. [Source: Folke, Colding & Berkes, 2003, p.358].

Thus the adaptive cycle may be used to examine the capacity of a social system to respond to changes in ecological circumstances in ways that enhance the sustainability of both the social and ecological systems. Folke, Colding & Berkes (2003) maintain that the key to success is to ensure that options for the future are not diminished through inflexible approaches to management. Adaptable institutional responses to environmental feedback are central to this approach. It requires an ability to recognise, anticipate, and re-organise social systems around changes that occur on a range of scales (Folke, Colding & Berkes, 2003; Folke et al, 2002).
4.3 Conceptual model for the research approach

Key themes, assumptions and implications arising from the literature are summarised here to form a conceptual model for the research. They include:

(a) A collective vision is needed to steer Australia towards a sustainable future. On the whole, human impacts on natural resources are not sustainable. In Australia, this is partly due to the lack of a consistent, coordinated approach to natural resource management (Commonwealth of Australia, 2000). Unless there is a shared vision of what sustainability is, and how it might be achieved, environmental degradation is likely to continue (Costanza, 2000). A shared vision of sustainability seeks to balance natural resource depletion with the rate at which an ecosystem can produce the goods and services required for human use (Costanza, 2000).

(b) A collective vision for a sustainable future may be achieved through a New Environmental Paradigm (NEP). Both ecological and social concerns are central to a New Environmental Paradigm, which advocates a new way of thinking, and the adoption of new values and beliefs (Milbrath, 1989). Refer to Table 2.2, p.39.

(c) A New Environmental Paradigm (NEP) may occur through wide-spread ecological literacy. Ecological literacy is an attribute of people who consciously seek to learn about, and identify with nature. O'Sullivan (1999) contends that sustainability can be attained through a collective vision and a change to a new environmental paradigm. He believes that widespread ecological literacy is the key to the development of a collective vision for sustainability.

(d) Ecological literacy can be developed in volunteers and stewardship groups through an ecosystems-based management approach to NRM. Ecological literacy can be developed within stewardship groups, and accelerated through an ecosystems-based management approach to environmental issues. Ecological literacy is also accelerated through the social learning and social capital that accumulates within and among these groups. Institutional memories can be shaped through ecological literacy, helping stewardship groups respond to changing environmental circumstances (Berkes & Folke, 2002). Thus, ecological literacy can also enhance the ability of
individuals and stewardship groups to overcome environmental problems, and to adapt positively to change.

(e) Volunteers in stewardship groups may be seen as taking deliberate, thoughtful actions to resolve environmental problems and to promote change within local communities. Social mobilisation is a ‘bottom-up’ approach to natural resource management arising through local needs and volunteer actions. It includes the ability of individuals and groups to take action to achieve positive environmental outcomes, and in Australia, relies on partnerships between government and community (Carr, 2002). Volunteers who are willing and able to take action with respect to environmental issues are sometimes said to have ‘action competence’ (Jensen & Schnack, 1997). Action competence is enhanced through social learning and social capital (Fien & Skoien, 2002). Thus, action competence can enhance the ability of individuals and stewardship groups to overcome environmental problems, and to adapt positively to change.

(f) The metaphor of panarchy or adaptive change may be used to help volunteers and stewardship groups learn how to live with change and uncertainty. Panarchy or adaptive change is a modification of Holling’s (1986) adaptive cycle that can be used to predict ways in which a social system might respond to environmental changes (Holling, Gunderson & Ludwig, 2002). Adaptive change may help in understanding the role of social processes that influence natural resource management (NRM). It builds on ecosystems-based management and is sometimes known as ‘resilience management’ (Holling, Gunderson & Ludwig, 2002). Adaptive change provides a model to prevent social systems from moving to states that reduce options for the future. It also provides guidance for renewal and reorganisation of social systems after major upheavals.

(g) Members of stewardship groups can develop both action competence and ecological literacy through their experiences as volunteers. To understand how a person may develop both action competence and ecological literacy, it is essential to begin with an understanding of their experiences, as Hansen (1994) explains:
Experience and actions are interrelated. Without wish and ability to act no experience is acquired, but experience is a necessary precondition for the development of action competence (p101).

Thus, the research approach stems from personal experiences, placed within the conceptual framework set out in Figure 4.8.

**FIGURE 4.8 Conceptual model for the research approach**

According to Figure 4.8, personal experiences underpin ecological literacy, natural resource management approaches (in this instance ecosystems-based management) and the development of action competence in individuals. In turn, these contribute to resilience and sustainability in stewardship groups, as well as a collective vision for a sustainable future, and a change to a new environmental paradigm. Stewardship groups also contribute to a collective vision for a sustainable future, which ultimately leads to a New Environmental Paradigm. In Figure 4.8, the dotted lines represent processes such as social learning and social capital as they flow from volunteer experiences through to each stage of the diagram, ultimately contributing to a collective vision for a sustainable future. The adaptive change metaphor can be
applied at different scales within the diagram, for example, at the level of personal experiences; or at the level of stewardship groups; or at the level of the New Environmental Paradigm, which would operate at the level of whole societies.

Thus, the diagram above suggests ways in which volunteer experiences may contribute to sustainable, resilient stewardship groups. Yet the diagram only provides suggestions, as there are gaps in the literature concerning this aspect of volunteering. Chapter Five is concerned with the research approach taken to answer the two research questions that are central to this study.
Chapter Five

The research approach - phenomenography

…the main strength and promise of phenomenography lies in a rigorous, empirical exploration of the qualitatively different ways in which people experience and conceptualise various phenomena in, and aspects of, the world around us. I believe that it is necessary to make general statements about the nature of the object of the research (Marton, 1992, p1).

5.0 Introduction

The literature review in previous chapters provides a framework for the context of the research. The review includes a discussion of the ways in which sustainable, resilient stewardship groups may grow and develop. It reveals that there are gaps in the literature concerning the influence of volunteer experiences on the resilience and sustainability of stewardship groups. This chapter discusses the qualitative nature of the research that was undertaken to address this gap. It presents the research methodology, method (research approach), and techniques or tools for undertaking data collection. A rationale for the chosen research approach and data collection techniques is proposed. The philosophical orientation and the major assumptions of phenomenography are explained, to provide a background to the conduct of the study. Strengths and weaknesses of the study’s method and techniques are discussed next. This includes a discussion of the role of the researcher and pitfalls to avoid when conducting the study. Preparation for data collection was thorough, and each step in conducting the study is fully explained. The quality of the study and ethical issues are raised in the final section of the chapter.
5.1 Methodology

The nature of the research questions lead the researcher in a particular methodological direction. As mentioned in Chapter One, this research aims to describe the experiences of volunteers in catchment care groups, and to determine if these experiences have implications for the longevity of stewardship groups. Thus, the specific research questions were:

**Question 1**
*What are the ways in which catchment volunteering is experienced in coastal communities in Queensland?*

**Question 2**
*In what ways do the experiences of catchment volunteers influence resilience and sustainability in stewardship groups?*

The research questions seek to uncover personal experiences and the social consequences of these experiences. They focus on the lived experiences (past and present) of individuals, and what these experiences contribute to social systems (Calhoun et al, 2002). Qualitative studies such as this do not rely on measurable variables, but adopt an open-ended approach, allowing "truth" to emerge through techniques such as the analysis of personal experiences, case studies, and historical, interactional and visual texts. Such techniques illuminate the significance of routine and often seemingly mundane episodes in individuals’ lives, especially in terms of the meaning ascribed to them by the people actually being studied (Alvesson & Deetz, 2000; Denzin & Lincoln, 2000; Creswell, 1997).
5.2 Research approach

‘Research approach’, ‘method’ and ‘specialisation’ for the purpose of this study, all refer to the way in which a combination of techniques and tools are used for gathering, processing and analysing information about a topic (Alvesson & Deetz, 2000). An important aspect of method is the way in which the researcher approaches the topic, what type of questions are asked and how. Method includes principles and procedures for dealing with uncertainties, ambiguities and contradictions as they arise in interviews, observations and other empirical material (Alvesson & Deetz, 2000). Further, method calls for careful interpretation of data, – a process in which the theoretical, political and ethical issues are central (Alvesson & Deetz, 2000, p5).

5.2.1 Rationale for the chosen approach

The researcher chose an approach that focuses on ways in which individuals experience catchment volunteering, in order to gain a deep understanding of the collective contributions of these experiences to their local groups. The chosen approach is known as phenomenography. It seeks variation in the ways in which people experience or understand a particular phenomenon within different settings (Marton, 1994a, 1994b; Saljo 1988, Saljo & Marton, 1984, Bruce, 1992). Thus, it appears a most appropriate approach for researching conceptions of catchment volunteering along the east coast of Queensland, where catchment volunteers vary considerably in the ways in which they volunteer their time. Catchment volunteering takes place in a range of different contexts, and varies in the institutional arrangements, as well as the social, economic and ecological settings.

5.3 Phenomenography

Phenomenographic research is centred on the variation in experiencing phenomena, and describing phenomena as others see them (Hasselgren & Beach, 1996). The variations in experiences are teased out from individual conversations, and used to exemplify different ‘categories of description’. Collectively, the categories of description are expressed as ‘conceptions’ that depict the internal relations between
the individual and the phenomenon - in this case ‘catchment volunteering’ (Marton, 1986; 1992). Conceptions have been variously described as ‘a way of seeing something, a qualitative relationship between an individual and some phenomenon’ (Johansson, Marton & Svensson, 1985, p236), as the ways in which individuals experience the meaning of something (Svennson, 1993), and as ‘people’s ways of experiencing a specific aspect of reality’ (Sandberg, 1997, p203). Marton & Booth (1997, p127) describe conceptions as ‘structures of awareness which people constitute from the world of their experience’. In this respect, individuals do not store definitions in their memories, but remember connections between experiences, which are then reconstituted to form explanations and understandings (Entwhistle, 1997). Marton & Booth (1997) explain further:

…descriptions of experience are not psychological and not physical. They are descriptions of the internal relationship between persons and phenomena: ways in which persons experience a given phenomenon and ways in which a phenomenon is experienced by persons (p122)

Phenomenography was first recognised as a research approach in the 1970’s at the University of Gothenberg, where the focus of study was to examine what people learn rather than how or why they learn (Marton 1981, 1986, Saljo, 1988). Thus the what question differentiates phenomenography from other qualitative research approaches (see Minichiello, Aroni, Timewell, & Alexander, 1994; and Chu,1994). The ‘what’ question in phenomenography is always framed as seeking the qualitatively different ways that individuals experience a phenomenon. By isolating representative quotations from their context, then grouping similar quotations under the same banner, phenomenography becomes reductionist and mechanical. Combined with the detached perspective of phenomenographer as unbiased researcher, the approach is leaning towards positivism. Yet by far the most useful aspects of this research approach are the data as descriptions of experiences, the very core of phenomenography. These are clearly qualitative, although observations (potentially rich data) about interactions between interviewees and interviewer are ignored.

Another approach describing participants’ lived experiences is phenomenology (van Manen, 1990). This approach has been used as a metalanguage to explain and clarify specific features of phenomenography, yet the two are quite different in many ways (Uljens, 1996). The main purpose of phenomenology is to explore lived experiences,
particularly in the form of anecdotes, narratives and stories (van Manen, 2002). This may be accomplished in a variety of ways, for example, through interviews, observation or language analysis. Phenomenological research seeks to capture other people's experiences, in order to become knowledgeable, or enriched by these experiences, and to reflect on the meanings that may be ascribed to them (van Manen, 2002). Phenomenology is concerned with capturing the essence of the meaning of a phenomenon, whereas phenomenography seeks variation in the ways in which a phenomenon is collectively experienced by a group of individuals (Uljens, 1996).

Marton (1981) developed phenomenography to direct and delimit participants’ descriptions of their everyday experiences of a particular phenomenon. It is a second-order approach through which participants are encouraged to consciously reflect on the meaning of the object of research. By contrast, participants in a first-order approach concentrate on describing the object, rather than the experience of that object (Marton, 1986, 1992, 1994b).

The main aim of this study is to investigate conceptions of ‘catchment volunteering’ among individuals who volunteer their time for a variety of catchment care groups along the east coast of Queensland. This was done by identifying and capturing the ways in which individuals experience ‘catchment volunteering’, and then developing categories of description from the data to exemplify collective experiences. Marton & Booth (1997) use the term ‘collective anatomy of awareness’ to describe the categories of description and their relationship to the phenomenon.

### 5.3.1 Assumptions of phenomenography

Qualitative researchers, in common with quantitative researchers, have a set of rules, criteria, assumptions and operations for working with data. These tools give meaning to the data and should be stated explicitly (Miles & Huberman, 1984). The following assumptions were adhered to during the study. They apply to phenomenography, which Marton (1988b, p181) describes as ‘relational, experiential, content-oriented and qualitative’:

**Willingness to participate in open-ended inquiry**
An important ontological assumption is based on the participants’ willingness to be interviewed, and their commitment to truthfulness about the topic. Participants in this study viewed their unpaid work as a serious commitment, and were all willing to partake in the study, as it was seen as one way of helping their cause.

**Bracketing**

According to van Manen (2000) bracketing (sometimes known as ‘epoché’) is the ability to “interpret” meaning and “produce” insights of experiential data that go beyond the meticulous implementation of the research steps *per se*. It is a technique whereby all previous knowledge, beliefs, and common understandings about a given phenomenon are ‘set aside’ (Hasselgren & Beach, 1996; Bruce, 1992). Bracketing involves the following steps:

1. finding key phrases and statements of the phenomenon,
2. interpreting meaning,
3. obtaining correlative interpretations of these if possible,
4. inspecting meanings and find the essence, and
5. offering tentative statement or definition in terms of essential recurring features (van Manen, 1990, p. 93)

During the interviews, the researcher attempted to see or understand the experiences of the participants through the participants’ eyes.

**Variation**

Phenomenography differs from other qualitative research methods and approaches as it is not concerned with individual responses but seeks variation in the ways in which a group of individuals relate to parts of the world around them (Marton, 1986; 1992; 1994b). In this study, interviewees’ experiences were pooled, and an overall range of responses is generated.

**Content of thinking**

As phenomenography focuses on what is said, the interviewer made conscious efforts to uncover all the understandings and experiences people have of catchment volunteering. Phenomenographers do not make statements about the world as it really is, but rather about the participants’ experiences of aspects of the world around them.
Phenomenography is not only concerned with the so-called ‘correct’ conceptions, but also with mistaken conceptions of reality. All responses are equally valid (Marton, 1986). Conclusions drawn from the study were made without standardising or comparing individual participant’s experiences.

**Relations between subject and object**

Phenomenography focuses on the relation between the subject and the object that is, between the individual experiencing the phenomenon and the phenomenon itself. From a phenomenographical perspective, participant and object do not exist independently. The relation between them is the phenomenographical experience. This aspect of the research approach is often described as the ‘non-dualistic’ nature of phenomenography. It moves the research orientation away from the notion of challenging existing conceptions of a phenomenon, and towards the variation in discovered conceptions (Prosser & Trigwell, 1997). There is no assumed baseline of information. Descriptions of experiences tend to attain some kind of meaning on their own. These whole characteristics, which comprise the relation between the participant and object, could then be described as a conception (Svensson, 1994).

As a result, the researcher sought to understand how a certain conception evolved and/or what might develop from it in different contexts. Once again, this assumption highlights the non-dualistic nature of the research approach. According to Saljo (1996):

> There is always a filter through which the world is seen if it is to be meaningful. The interest in this filter – the conceptions of reality that we have acquired as participants in human communication – is what characterises phenomenography as a scientific undertaking (p38).

The filter is acquired, refined and developed through experiences within a particular social setting, and are crystallised through language and learning. Individuals learn through experiences, thinking and activity (Svensson, 1994).

**Categories**

The participants’ understandings are gathered together and then sorted into conceptual categories of description. This categorisation of responses involves a reduction in content, but not a reduction in the meaning of the content (Svensson, 1994). Marton (1986) believes that the development of categories is the most important aspect of this
type of research. Categories are generated purely as a result of the transcripts of the interviewees’ discourses – no prior categorisation takes place.

**Limited number of responses**

Participants hold particular morals, ideals, beliefs and thought patterns that ultimately determine both the number and boundaries of each conception. There are a finite number of conceptions held, and it is the researcher’s intention to uncover these, and the limits or boundaries of each. Both internal and external boundaries or horizons exist for each conception. Both are defined by the participant. Phenomenographers describe the delimitation from and relation to the context as the *external horizon* or external boundary of the object. The *internal horizon* or internal boundary describes the perimeters of parts that make up the whole object or phenomenon. These two horizons make up the *structural aspect* of the experience (Marton, 1992).

**Outcome Space**

Each conception that subsequently develops is part of a larger structure linking the categories, known as an Outcome Space. It is a representation of the essence of the meaning and the context in which the meaning is intended by the interviewees (Marton, 1988b). It is not a relationship between transcripts but between conceptions. Each transcript may contain several conceptions – conceptions exist between the participant and the phenomenon – the participant may hold several conceptions. The Outcome Space is a visual representation of the categories of description and the relationship between them, and is usually presented as a diagram.

The structural aspect of the Outcome Space (the ‘noema’) refers to how the outcome is physically arranged, and is determined by the internal and external horizons of each conception. The structural aspect incorporates a particular configuration of the conceptions that may be hierarchical or sequential but not overlapping, as each conception is a discrete entity (Marton, 1988a). The referential aspect of the Outcome Space (‘noesis’) examines what the reference is about. The referential aspect examines the different ways in which a phenomenon is experienced – ie as part of a whole, or containing portions that have little relationship to each other (Marton, 1988a). The Outcome Space forms a theoretical model or ‘map’ that may be validated in further research (Marton, 1986; 1992).
5.4 Research techniques

Kumar (1996) argues that research is a way of thinking, rather than practising a set of skills. Such thinking includes being able to develop and test new theories for the enhancement of a profession. In this case, the ‘profession’ is that of catchment volunteering. Although not strictly speaking a profession, as the participants receive no financial rewards for their work, catchment volunteering is very much a part of some peoples’ everyday lives, and is considered to be just as important by many as their ‘paid work’ (see Chapter Three). Thinking about new ways to enhance the role of volunteers in the development of community resilience and environmental health was seen as an important component of the study by both researcher and participants. Part of the thinking process included careful preparation and attention to detail, prior to the data collection phase, to ensure meaningful data were collected. Thus, building on suggestions by Gerber, Kwan & Bruce (1993, cited in Willmett, 2002), the researcher undertook to:

- be conscious at all times of the assumptions, principles and procedures of a phenomenographic study;
- choose the type of field work most suited to answering the research question;
- set the scene and explain the purpose of the research to the participants through the use of appropriate language;
- observe participants behaviour in the field;
- conduct pilot interviews to develop the format for future interviews;
- conduct reflective personal interviews with some participants, and group interviews with others to explore their experiences;
- reflect on the research undertaken to decide whether or not more interviews were needed to gather further data;
- transcribe, collate and analyse the data; and,
- validate the choice of categories of description through group discussion with fellow researchers.
5.4.1 Chosen techniques – personal & group interviews

Semi-structured interviews were used in this study to interview both individuals and groups. Semi-structured interviews comprise a set of questions that follow a particular sequence, although the wording of each varies with the context of the conversation style interview. This type of interview is the preferred technique for phenomenographic studies because it allows participants to explore the breadth and depth of their experience and reflect upon their revelations, in ways not afforded by more structured, closed questions (Marton, 1992; Denzin & Lincoln, 2000). At the same time, they are efficient in terms of time and resources, when compared with unstructured interviews (Martella, Nelson & Martella-Marchand, 1999).

Both personal and group interviews were seen as being useful in this study. Personal interviews about a specific phenomenon allow the researcher to obtain large amounts of rich data (Marton, 1986, Bruce, 1992). When group interviews are employed, the researcher can collect a wide variety of information from several individuals at the same time, however, depth of data is sacrificed (Marshall & Rossman 1999, p108).

Several types of group interviews may be used in qualitative research. In this study, group discussions followed the basic principles of the focus group process, with some variations. Stewart & Shamdasani (1990) explain that group discussions provide insights into the behaviour and thinking of individuals within a group, through the use of questions that foster the expression of feelings, attitudes and perceptions. Part of the rationale behind group discussions is the assumption that individuals feel more secure about discussing problems or issues with others who share the same problem/issue. Characteristic of focus group discussion are the degree of interaction among participants, and the ways in which information, attitudes and feelings are shared and created among the group. People should be able to clarify views and express opinions freely, in a non-threatening environment (Kreuger, 1994). If it is progressing well, the discussion can take the researcher and participants in new and unexpected directions. The researcher can then analyse the ways in which that sort of change occurs (Kitzinger, 1995).
5.5 Strengths and weaknesses of method and techniques

According to Hasselgren & Beach (1996), phenomenography can provide useful information about learning, learning outcomes and learning experiences. This has practical applications to environmental education, social learning and adaptive change theories. However, in common with other research approaches, there are potential pitfalls associated with phenomenography. The following discussion acknowledges these weaknesses and provides guidance for minimising pitfalls associated with the approach. The role of the researcher in conducting the study is crucial in obtaining quality data.

5.5.1 Role of the interviewer

Bruce (1994) explains that the skill of the interviewer lies in obtaining all possible variations in the ways in which a phenomenon is experienced by the participants. She outlines several strategies to obtain the best quality data. The researcher tried to adhere to these as best as she could. Ideally, the researcher should:

• put aside his or her own experiences, and focus on the views of the interviewee;
• treat all information supplied by the interviewee as being of equal in value; and
• encourage the interviewee to describe his or her understanding of the phenomenon, through examples and descriptions (Bruce, 1994).

Bruce explains that initially asking a question such as… ‘What is your experience of volunteering for a catchment group?’ may not be appropriate, as it may lead to a stilted response. Instead, participants may need to be asked a series of questions and encouraged by the interviewer in a semi-structured way, to obtain the richness of their experience. Indeed, the final question may be the one posed above, but by using the technique just described, interviewees are given time to reflect and think about their experiences. Where possible, areas of confusion should be teased out by the researcher by probing for analogies. Probing is a way of reaching internal and external boundaries of the interviewee’s experiences, and can be achieved through questions such as:

‘What was that experience like for you?’ and
‘Could you tell me more about….?’

Often the participant’s own language is used to frame such follow-up questions, and to keep the context of previous conversations (Bruce, 1994). To draw out variation in experiences, the interviewer needs to see the phenomenon from the interviewee’s perspective, through their own use of examples and comparisons. This second-order perspective is described in the following way:

A fundamental distinction is therefore made between two perspectives. In the first-order perspective, which is noumenal, or matter-of-fact, the intention is to describe the world as it is. The second-order perspective - is phenomenal, experiential, the world-as-perceived, the intention is to describe the world as people experience it. From the two different perspectives different aspects of reality are visible, and we arrive at different levels of description. (Marton 1979, p 1, in Theman, 1979).

This second-order reflection can be problematic for phenomenographers, as it is very difficult for interviewers not to frame their research within their own feelings and beliefs and understandings of the world as it appears to them (Denzin & Lincoln, 2000). Data collection and analysis, and even the phenomenon itself, is likely to be viewed by the interviewer in a certain light (Hasselgren & Beach, 1996). Further, Marton & Pang Ming Fai (1999) state:

It is the different ways in which a particular phenomenon appears to people that vary and it is the researcher who senses this variation (p2)

Far from being totally objective, reserved and unbiased, it is critical to remember that researchers bring to their study their own worldviews, and that the Outcome Space, generated by the researcher, is therefore the researcher’s interpretation of the variety of conceptions held by those being interviewed (Thompson, 1998).
5.5.2 Pitfalls of phenomenographic interviews

Theman (1979) outlines some pitfalls of phenomenographic interviews that include the following:

**Missing utterances through anticipation**
In an interview situation, researchers may think that they are discussing similar ideas as the participants, and then, reading through the transcript, find that the ideas are not similar after all. Thus, the researcher should try not to fabricate ideas that are a personal interpretation of what was really said or intended.

**Dependency and ignorance**
One of the skills of the interviewer is being able to take the participants to a point where they can no longer express ideas or describe experiences of the phenomenon. The interviewer then tries to go beyond this point, to reflect on the whole experience and to comment on the whole process. This is the outer boundary of the participants’ experiences. It is difficult to achieve without the interviewer forcing dialogue through areas of uncertainty – ie a participant may look to the interviewer for clues and becomes dependent on the interviewer to help express themselves. Yet the interviewer should ensure that the limit or extent of the participants’ experiences are reached, and so continue to probe. The interviewer needs to look for signs from the participants that they really cannot add any more to what they have already said. Signs might include statements as …*I really can’t add any more to that*… By not respecting the interviewees’ judgements, the interviewer could upset or even insult the participants.

**Establishing a social contract**
Interviewers need to be as transparent as possible about the purpose, intention and possible use of the data being collected. This minimises misunderstandings, and encourage a good rapport with the interviewee. In addition, participants should be encouraged to use the interviewers own phrases as yard sticks for their own experiences, using them to reject or build upon ideas, although the interviewer needs to be conscious of injecting their own biases in doing this. In promoting a non-threatening environment, the interviewer should allow for all expressions and
descriptions, even those that are considered by the interviewer as irrelevant, unacceptable, or incorrect.

The following pitfalls may be specifically associated with phenomenographic group interviews (Willmett, 2002):

**The researcher does not make use of the interactions between participants**
There is no scope in phenomenographic analysis to allow for this. The whole analysis focuses on the researchers’ interpretation of descriptions of experiences, with no scope to interpret or understand observations of group interactions. The researcher’s perspective as well as the cultural, social, political, historical and geographical context should be made clear, when analysing group interviews.

**Composition and size of groups**
This can be problematic, where dominant participants may inhibit the disclosures of others in the group. Researchers should be sensitive to these and other power relationships, such as the relationship between the interviewer and those being interviewed. One way of addressing this is to encourage dialogue among the participants, rather than between the interviewer and individual participants. Smaller groups (less than eight) tend to diffuse these issues, as shyer participants may be less intimidated in a smaller group. It is easier for the researcher to include all participants when the group is smaller. Gender of the researcher and the gender balance within the group may be a problem for some sensitive issues, such as sexuality.

**Universal claims cannot be made about the study**
This is true for all phenomenographic studies. Careful wording is required so that extrapolations of data cannot be made to include all catchment volunteers, as the findings of this study holds true only for this group of catchment volunteers. The results can, however be the starting point for further research, to see whether the results of this research do have further application.
5.5.3 Intense nature of interviews
Conducting interviews can at times be very intensive. The interviewer has to simultaneously concentrate on maintaining the flow and content of the interview through a particular line of questioning, and to maintain a strong focus and genuine interest in what is being said. This balancing act has implications about the quality of data being collected. During analysis, the researcher should somehow, take into account the context of each interview, what was being said, the manner in which the dialogue was spoken, and the mental agility of the interviewer. Phenomenography does not account for these subtle interactions between the interviewer and the interviewee, and maintains that as long as the semi-structured format was adhered to, the quality of data should not be affected.

5.5.4 Describing experiences
Saljo (1996) reminds us that the language used to describe experiences is derived from our culture, and our collective consciousness. In other words, language is borrowed and built upon from other individuals within our society. Thus people describe experiences through a particular cultural lense. The way people act, think, feel and learn is culturally driven, and this is reflected in language and descriptions of everyday experiences (Alvesson & Deetz, 2000; Denzin & Lincoln, 2000; Marshall & Rossman, 1999).

5.5.5 Confusion over categories of description and conceptions
What are the boundaries between categories of description and conception? Conceptions are interpreted as a unit of analysis, but the delimitation from these and categories of description are hazy. Categories of description denote conceptions (Johansson, Marton & Svennson, 1985), implying that they point to another level of description. Yet, conceptions have been described as assumed, implicit and integral characteristics of a group of people, not therefore requiring further analysis (Saljo, 1996). Conceptions are ‘held’ rather than ‘talked about’ or ‘explained’, and could be interpreted in a rationalist framework as tags for combining and condensing ideas, thus losing their original intent.
Another problem in identifying conceptions lies in the way the analysis is conducted. The researcher usually undertakes the complete analysis in isolation from the participants, thus mis-interpretations descriptions can arise (Saljo, 1996). Reservations about the way in which conceptions are arrived at is echoed by Hasselgren & Beach (1996).

5.5.1 What is said versus why it is said

Saljo (1996) is also concerned about another weakness in the phenomenographic approach, which is centred on what people say, and totally disregards why people talk as they do. This in itself is problematic as it is the researcher, through the semi-structured interview, who raises the topics (ie the whats) of conversation. Saljo (1996) is also concerned that the process of alienating quotations from their context could lead to mis-representations and problems in interpreting the meanings of the quotations. The original intention may be lost or misconstrued.

According to phenomenographers, experience is non-dualistic (Marton & Booth, 1997). Implicit in this perspective is the assumption that through descriptions of experiences, participants say something about themselves and the phenomenon they are describing. This is because subject and object cannot be separated when referring to personal experiences of the object (Marton & Booth, 1997). This mind-world relation implies that variations (experiences) can be categorised as representing something other than just what people have described to the researcher. Hasselgren & Beach, (1996) warn that this implication could be used by a phenomenographer to defend his/her choices of categories.

As discussed earlier, categorisation is performed by the researcher, who interprets the quotations taken from the interviews. Thus, the researcher, once again, influences the analytical process. This is not necessarily a weakness, but is not the second-order perspective required of a purely phenomenographic approach. Sandberg & Beach (1996) point out that phenomenographers believe that the descriptions of experiences and the development of categories of description are arrived at as accurately as possible, through adherence to the principles and assumptions of phenomenography.
5.6 Steps in conducting the study

The following steps were undertaken in this study, in line with the phenomenographic approach: selecting the participants and locations for interviews; conversation; transcription, identifying the transcriptions; familiarisation; condensation; comparing and grouping; articulating and labelling; and contrasting (Dahlgren & Fallsberg 1991, pp150-156; Sandberg, 1994, p86). From these steps an Outcome Space was built and new concepts relating to the resilience and sustainability of stewardship groups were developed. Each step is discussed in turn, under the relevant sub-headings below.

Step 1 Selecting participants & locations for interviews

The term ‘catchment volunteering’ was central to the study. All participants were chosen on the assumption that they (a) volunteered their time freely for no economic gain; (b) undertook the work of their own free will; (c) worked within a volunteering or not-for-profit organisation or program. (These assumptions are based on definitions of volunteering in the literature eg Bates, 1999; Cordingley, 2000.) Catchment volunteers were approached from a variety of stewardship organisations to take part in the study including Landcare, Coastcare, Bushcare, Greening Australia, Waterwatch, TREAT (TREes for Atherton Tableland), local Progress Associations, Green Corps, Green Reserves, ACTV (Australian Conservation Trust for Volunteers) and integrated catchment management committees. These organisations and programs operate along the length of Queensland’s coastline, working in vastly different physical and social environments (Zann, 2000). It was assumed that both the volunteers and their work environments would vary considerably from place to place, due to natural systems and human impacts, so the researcher decided to capture these variations by undertaking the study along the coastal strip of Queensland.

After gaining ethical clearance in writing from Griffith University regarding the conduct of the study, the researcher made initial contact with intermediaries who were, in each location, one step removed from the volunteer group/program. Intermediaries included people who worked closely with such groups/programs (for example, staff from the Queensland Department of Natural Resources and Mines; Brisbane City Council staff).
This contact was made by both email and telephone conversations, in which the project’s aims, desired outcomes and contributions to catchment volunteering were explained. The researcher also outlined potential times and dates for each interview, and how the interviews would be conducted. No attempt was made to exclude potential participants. All did, however, have to conform to the previous definition of a ‘catchment volunteer’. After the initial contact was made, the researcher then contacted individual volunteers – again by both email and telephone, inviting them to attend the group interviews, or asking them to be interviewed individually, if they preferred. Again, the purpose of the study was explained, and the participants’ potential roles outlined. Participants were contacted again by phone on the day prior to the interview. None of the participants knew the researcher prior to interviews. A total 26 of interviews were conducted along the east coast of Queensland, from Brisbane to Mossman, just north of Cairns.

<table>
<thead>
<tr>
<th>Interview Numbers</th>
<th>Location</th>
<th>Number of interviews at each location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 6</td>
<td>Brisbane</td>
<td>12</td>
</tr>
<tr>
<td>7 – 10</td>
<td>Sunshine Coast</td>
<td>5</td>
</tr>
<tr>
<td>11 – 12</td>
<td>Wide Bay</td>
<td>11</td>
</tr>
<tr>
<td>13 – 15</td>
<td>Central Queensland</td>
<td>18</td>
</tr>
<tr>
<td>16</td>
<td>Eungella National Park</td>
<td>8</td>
</tr>
<tr>
<td>17 – 18</td>
<td>Ayr</td>
<td>12</td>
</tr>
<tr>
<td>19 – 21</td>
<td>Townsville</td>
<td>10</td>
</tr>
<tr>
<td>22</td>
<td>Innisfail</td>
<td>3</td>
</tr>
<tr>
<td>23 – 24</td>
<td>Atherton Tableland</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>Cairns</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>Mossman</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TOTAL NUMBER OF INTERVIEWEES</td>
<td>85</td>
</tr>
</tbody>
</table>

The first two interviews (one personal and one group) were used in a pilot study to determine whether the interviews were generating a range of responses that could be effectively categorised (Bruce, 1994). Of the final interviews, 13 were personal interviews, while the rest comprised group interviews of between 2 and 10 participants. Altogether 85 people took part in the study. The number of participants was determined by the amount of new information each person or group was
disclosing in each interview. When it became apparent that no new information was being generated, there were no further interviews. The final questions used in the study are listed in Figure 5.1. Interviews were often conducted in the evenings or on weekends, to suit the participants.

1. Tell me about some of your experiences as a volunteer for __________

2. How did you become a volunteer with this organisation and when did you start?
   - What triggered your interest in environmental/catchment issues?

3. Could you describe the variety/range of activities that you personally undertake as a volunteer for __________?

4. Could you describe for me a bit more about what it’s like to be a volunteer for ________?
   - What are some of the benefits, opportunities?
   - What are some of the frustrations or negatives?

5. Thinking back to a recent relevant issue that you became aware of, what did you/others in the group do?
   - Were their certain people or organisations that you/others approached? (Where or who did you go to?)
   - What (if any) changes occurred as a result of the issue?

6. Who do you talk to about your volunteering experiences?
   - What sort of responses do you get from them?

7. Have you volunteered or do you volunteer for any other organisations?
   - (If yes) Briefly then, in what ways might other types of volunteering be similar to those of volunteering for this group/network?
   - In what ways might they be different?

8. How do you see your role as a catchment care volunteer in this community?

9. In your own words, could you define catchment care volunteering?

10. What keeps you coming back to volunteering?

11. Do you have any other comments about what it’s like to be a volunteer for ________?

FIGURE 5.1: Questions used in interviews
FIGURE 5.2: Map showing location of interviews
Step 2  Conversation

Both personal and group discussions were as relaxed and friendly as possible, to create a non-threatening atmosphere. Personal interviews occurred in either the participants’ own homes, or their volunteer centre, in a quiet location, away from external distractions and noise. Group participants were always seated in a circle, with tea, coffee, cakes and/or biscuits, and cold water offered before or during the sessions. Participants were welcomed (if outside their homes), and thanked for coming along. Some had travelled several kilometres just to participate, and this was acknowledged gratefully. An outline of the procedures for conducting the interviews was given. The researcher gave an overview of the project, and explained the purpose of the discussion. It was explained that the interviews would follow a semi-structured format, and that participants were encouraged to speak freely. The researcher stressed that it was important for all voices to be heard, and that dominant individuals should be sensitive to all participants in the room. It was explained that the interviews would be kept in strictest confidence, but that the sessions would be tape-recorded for transcription purposes. The facilitator asked if anyone had objections to the tape-recording (none did). All interviews (both group and personal) followed the same semi-structured format, with a basic set of questions to be answered in a particular format. Both group and personal interviews were of about 90 minutes duration, although personal interviews were often a little shorter. When it appeared that no further discussion could be derived from a particular set of questions, the researcher introduced a new question. When time was running out, the researcher managed to bring the discussion around to the most salient issues. Many participants expressed gratitude for having the opportunity to get together with ‘like-minded people’. At the conclusion of the interview, each participant received a ‘Certificate of Appreciation’ to acknowledge their valuable contributions.

Step 3  Transcription

Each interview was transcribed, word for word, as soon as practicable. There were some delays in transcribing some of the taped interviews immediately, as the researcher was travelling for a period of two and a half weeks, collecting data. The researcher transcribed the first eight interviews in order to ensure familiarity with the
range of nuances in responses, and then the remainder were transcribed by an administrative assistant. Each transcription was stored electronically, and back-ups made on both floppy discs and CD-ROM. Hard copies were made of each one also. Each interview was given a number and accompanying brief description, to link each quotation with its particular transcription. This helps to provide a context for the quotations. Table 5.2 shows how this was done.

**TABLE 5.2: Identifying the transcriptions of interviews**

<table>
<thead>
<tr>
<th>Interview Number</th>
<th>Description</th>
<th>Number of interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brisbane Integrated Catchment Management (ICM) group – group interview, 5 males, 2 females</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Brisbane urban landcare - personal interview, 1 male</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Brisbane urban landcare - personal interview, 1 male</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Brisbane urban landcare - personal interview, 1 female</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Brisbane urban bushcare - personal interview, 1 female</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Brisbane urban bushcare - personal interview, 1 male</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Sunshine Coast hinterland – regional landcare, small group interview, 2 females</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Sunshine Coast – personal interview, 1 male</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Sunshine Coast – personal interview, 1 female, waterwatch, ICM, landcare</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Sunshine Coast – personal interview, 1 female, ICM, landcare</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Wide Bay - Regional Landcare – group interview of 10 participants; 1 individual interview</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Wide Bay – personal interview, 1 male</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Central Queensland rural waterwatch group - 5 males</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>Mixed rural group in Central Queensland - landcare &amp; coastcare – 3 males, 4 females</td>
<td>7</td>
</tr>
<tr>
<td>15</td>
<td>Mackay ex-Green Corps* and ex- green Reserves* - group interview 6 males</td>
<td>6</td>
</tr>
<tr>
<td>16</td>
<td>Eungella National Park- ATC volunteers – international backpackers 5 males, 3 females</td>
<td>8</td>
</tr>
<tr>
<td>17</td>
<td>Mixed rural group in Ayr – landcare, waterwatch, local progress association, recreational fishers (Sunfish) – 5 males, 5 females</td>
<td>10</td>
</tr>
<tr>
<td>18</td>
<td>Ayr, rural waterwatch group, small group interview, 2 females</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>Townsville – Green Corps* and Green Reserves* group interview, 8 participants, 4 female, 4 male</td>
<td>8</td>
</tr>
<tr>
<td>20</td>
<td>Townsville – personal interview, female waterwatcher</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>Townsville – personal interview, member of landcare and Greening Australia, male</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>Innisfail tree planting group – group interview of 3 females</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>Herberton - Waterwatch – small group interview, 1 male, 1 female</td>
<td>2</td>
</tr>
<tr>
<td>24</td>
<td>Atherton Tableland – small group interview, 1 male, 1 female</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>Cairns – personal interview, male waterwatcher</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>Mossman- personal interview, male waterwatcher</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL NUMBER OF INTERVIEWEES</strong></td>
<td></td>
<td><strong>85</strong></td>
</tr>
</tbody>
</table>

* Included only those who were volunteering beyond their allocated time as mutual obligation volunteers. Mutual obligation volunteers are those who are otherwise unemployed, and are obliged to ‘volunteer’ for a variety of organisations in order to receive their unemployment benefit.
Step 4  Familiarisation

Each tape recording was listened to immediately after each interview, then again after transcriptions were made. The verbatim transcripts of interview were read several times, and tapes were listened to several times, so that the researcher became immersed in the data. During this time any gaps in the transcription were filled as best as possible. These were then sent to participants for verification and additional proof-reading as a face validity check. On two occasions, participants wished to change the wording of particular sentences, to avoid mis-interpretation of what was meant.

While listening to the tapes, the researcher made notes and comments about each one on the hard copies of transcriptions, as the tapes were being played. Similar views, ideas and descriptions became apparent with each re-reading, and were highlighted with a coloured pen. Different meanings were tagged with different colours. With each re-reading, a deeper level of understanding of the interviewee’s experience developed. Key words or phrases used by the participants were recorded on the transcriptions to label different meanings. The researcher soon found recurring patterns in the content of the audio-tapes.

Step 5  Condensation

Different meanings were identified and ascribed to different parts of the interviews as familiarisation proceeded. To help in this process of theme development, the researcher used the phenomenographic strategy of bracketing through the application of questions such as What is this person really trying to say here? What common ideas or themes are being expressed? Comments and tags such as ‘a growing awareness of political processes’ or ‘this person has become more confident as a result of their experiences’ were part of the annotation. The volume of the content was reduced, while attempting to retain the essence of what was said. The next part of this step was to compare the reduced content that consisted mainly of highlighted statements with their preliminary tag of key words or phrases. The researcher then looked for similarities and differences between the highlighted statements, with a view to grouping similar statements.
Step 6  Developing categories of descriptions

Data from all interviews, both personal and group, were pooled for analysis. The analysis began by comparing highlighted statements and written comments, as the researcher looked for those that agreed and those that differed from one another. Similar statements that were then grouped together. Major themes were given a descriptor, and their respective key ideas were recorded as sub-themes. Each theme with its set of sub-themes and relevant key statements (quotations) were kept on a separate file. Eventually six themes emerged as consistently and most accurately describing the quotations. Key quotations ascribed to each were placed under the relevant sub-themes.

As part of this process, the researcher selected thirty quotations from all of the transcriptions to represent the most ‘typical’ quotations from each theme. A meeting of five co-judges was arranged. One co-judge had industry experience with catchment volunteers; two were fellow PhD students undertaking similar research; and two were post-doctoral researchers, involved with qualitative research relating to natural resource management. Each co-judge was given a single sheet of paper listing the six categories of description (labels). They were then given separate sheets of paper with the thirty quotations written out. The co-judges were asked to decide which quotations best fitted each category of description, by writing a label beside each quotation. If the co-judges found quotations that did not fit any category, they were asked to circle these, and make comments. This process took about 30 minutes, after which time the researcher asked participants to share their thoughts with the rest of the group. At the end of the meeting, labels, quotations and comments were collected. The researcher then scrutinised each carefully, considering all comments and choices. Although there were some discrepancies in choices made, an overall consensus emerged. In this way, a process of ‘inter-judge reliability’ was implemented as a critical part of the analysis to minimise the possibility of the researcher influencing the categories of description through her own biases. It should be stressed that the categories of description finally arrived at were not ‘mental models’ nor were they ‘conceptions’; rather they were the researcher and co-judges’ interpretations of the way participants experienced ‘catchment volunteering’ (Thompson, 1998).
Step 7  Contrasting categories of description

In this step, the categories themselves were compared and contrasted, and internal and external horizons of the conceptions pinpointed. Although the whole analysis was extremely lengthy, and at times confusing and difficult, the researcher was able to reflect deeply and empathetically on the experiences of the participants. The iterative, cyclical nature of the process involved the researcher in discovery and construction (Bruce, 1994). It effectively reduced massive amounts of data into a simple model - the Outcome Space (Marton, 1988a).

The Outcome Space was achieved by developing links between the categories that were represented diagrammatically. The Outcome Space exposed relationships between and within the different categories of description, allowing deeper meaning to be derived from the analysis. As further validation of the whole process, and to increase reliability, the Outcome Space and categories of description (with explanations) were sent to as many of the participants as possible. These were also sent to other key stakeholders as well, for example, volunteer coordinators, from Waterwatch, Landcare and Greening Australia, as well as various local Council staff members. Feedback about the categories of description and the initial Outcome Space were used to decide the final Outcome Space.

Step 8  Beyond the Outcome Space

Results emerged from further analysis of the conceptions and the Outcome Space to reflect the ability of volunteers and groups to adapt to changing circumstances in positive ways. Experiences that lead to instability and negative outcomes were also examined, as it was assumed that these detract from the resilience and sustainability of catchment groups. From this analysis, elements of the Outcome Space were applied to Holling’s (1986) adaptive cycle to determine some of the triggers that lead to the collapse of stewardship groups, and to highlight characteristics of volunteers and stewardship groups that can keep going under difficult circumstances.

Using the voices of the participants (ie direct quotations), guidelines for building resilient sustainable stewardship groups were developed. From the guidelines a model
was constructed to show the relationship between external factors influencing groups, and the ways in which resilient, sustainable stewardship groups (and their volunteers) cope with these influences (Figure 11.7 and Table 11.7 in Chapter Eleven).

5.7 Quality of the Study

It is recognised that any research approach will have short-comings, as no research approach ‘…has a monopoly on quality’ (Gerber, 1993, p4; cited in Willmett, 2002).

Consistent with qualitative research, the quality of a phenomenographic study should lie with the quality of data collected and analysed (Kvale, 1989). Validation involves theorising and questioning, as well as checking the credibility, plausibility, and trustworthiness of the findings. It involves investigation as craftsmanship, where quality control is intrinsic to the generation of data. Such validation allows us to picture and question the social reality being researched (Kvale, 1995). In qualitative research, there are no strict rules about how this is done, although the researcher should attempt to seek out and note as many sources of bias and error as possible (Miles & Huberman, 1984). Qualitative analysis seeks patterns and draws conclusions from these, which can be verified by the researcher as the analysis proceeds (Miles & Huberman, 1984). The style of verification varies enormously, and is not easily replicable, nor is it necessarily accurate (Miles & Huberman, 1984). Kvale (1989, p89) believes the process of validation depends very much on the type of research undertaken, and the perceptions and worldviews of the researcher. He further notes that validation in qualitative research may not be needed - and may even inhibit the generation of new knowledge (Kvale, 1989, p92). Kvale (1995) contends that too much emphasis on validation could be interpreted by some as a lack of confidence in the chosen method, or in the value and worth of the researcher’s own abilities. Indeed, an over-emphasis on validation could hamper the generation of new knowledge, if creativity and innovation are stifled by the process (Kvale, 1995).

Marton (1986, p35), used an interesting analogy to illustrate his view of validation in phenomenographic studies. As one of the founders of the research approach, he is often asked when presenting his findings, whether another researcher in the same field would arrive at the same set of categories. Marton responds:
Would two botanists discover the same plants and species if they independently explored the same island? (Marton 1986, p35)

He contends that the original development of categories is a discovery, and as such does not have to be replicable. Once discovered, however, there should be a high degree of agreement between researchers as to the presence or absence of the ‘discovered’ categories. This is sometimes referred to as ‘inter-judge reliability’ (Sandberg, 1997; Saljo, 1988; Marton, 1986). It

...gives a measurement of the extent to which other researchers are able to recognise the conceptions identified by the original researcher, through his/her categories of description (Sandberg, 1997, p205).

The degree of correlation really depended on the quality of data collected in the first place. As Bruce (1994, p.54) states:

...quality of the analysis is dependent upon the quality of the data gathered...

In this study validity was approached through:

- adherence to the established assumptions, principles and procedures for data collection and analysis, and for personal and group interview processes;
- awareness of the researcher’s personal biases, and the way the researcher related to participants;
- provision of feedback to participants wherever possible;
- awareness of and sensitivity to, the political and ethical context of the work being undertaken; and
- involvement of participants and other interested people in discussions of results and how they were analysed.

5.8 Ethical issues

Ethical problems related to qualitative research approaches such as phenomenography include tensions between the right to privacy of those being studied, and the right to know of the public. Principles and procedures to safeguard individual rights include:

- confidentiality of interview data;
- negotiated use of data between those being studied and the researcher; and
• some degree of control by participants over accounts of their experiences (Roberts, 1996).

The ethical issues that Roberts raises are pertinent to the whole research project. When undertaking the study, participants remained anonymous and were fully informed of the project, its aims, desired outcomes and contributions to the field. As part of this process, all names were changed in the transcriptions of interviews. Participants were assured that the interviews and discussions were undertaken in strictest confidence and that the results would only be used for the purpose of this study. Accounts of experiences were given back to participants as verbatim transcripts for checking and approval as soon as possible. Participants were encouraged to discuss the outcomes of the research through email and telephone conversations.

5.9 Summary

The research approach chosen for this study is phenomenography, a qualitative approach that looks for variation in the way individuals experience a certain phenomenon. It is an appropriate choice to gain insight into the ways in which individuals in coastal Queensland contribute to local stewardship groups through their activities as catchment volunteers.

Analysis of the interviews included transcribing each interview word-for-word, identifying each transcription; reading and re-reading each transcription several times; highlighting key words or phrases; grouping similar statements from all of the transcriptions together; developing labels to describe similar groups of words and phrases; and comparing and contrasting each group. This cyclical procedure took several months, with the aim of identifying and capturing all of the ways in which participants experienced ‘catchment volunteering’. The ‘categories of description’ eventually became conceptions that reflect collective experiences. The conceptions are analysed in the next five chapters. The relationships between conceptions were illustrated in ‘the Outcome Space’ presented in the final chapter of the thesis. The final chapter also returns to the adaptive cycle to discuss elements of the results that
could be used to pinpoint factors influencing resilience and sustainability in stewardship groups.

The quality of the study was assured through adherence to the phenomenographical assumptions, principles and procedures for data collection and analysis. Care was taken to undertake interviews in a manner that didn’t influence the participants’ responses with the researcher’s personal biases. Wherever possible, the researcher communicated results to participants and incorporated feedback into data analysis.
Overview of findings

This section begins by presenting the conceptions held by the participants in the study. Chapters Six to Ten analyse the results of this study, where 85 participants describe the variety of ways in which they experienced ‘catchment volunteering’. The term ‘catchment volunteers’ includes individuals in not-for-profit groups and programs that have a catchment focus. 85 people from a variety of stewardship groups participated in the study. The respondents’ descriptions, and the ways in which the descriptions relate to the phenomenon ‘catchment volunteering’ comprise the data.

The research was conducted as a phenomenographic study, as described in Chapter Five. In essence, phenomenography focuses on the variety of ways in which people experience or understand a particular phenomenon within different settings (Marton, 1994a; Saljo 1988, Saljo & Marton, 1984). It is a second-order perspective, whereby the interviewer sees experiences from the participants’ perspective (Hasselgren & Beach, 1996). Phenomenography allows the researcher to gain insights and reflections into ordinary peoples’ experiences of everyday events (Marton, 1994a; Saljo, 1988).

The participants’ understandings are collated, and then sorted into categories of description (Svensson, 1994). The categories were ultimately revealed as six conceptions that describe the ways in which participants in this study experienced ‘catchment volunteering’.

The relationship between the conceptions is visually represented by a diagram known as the Outcome Space. The different conceptions reflected (in part) the level of involvement with catchment volunteering and the length of time spent as a volunteer. Participants had a variety of backgrounds, and varied in their ages, life experiences and educational levels – for example, among the respondents were long-term unemployed people, people with paid work, people who had left the paid workforce, and students. It is important to remember that each transcript usually held several conceptions, and that each respondent experienced catchment volunteering in a variety of ways. Each conception is comprised of themes, and each is discussed under sub-headings in the relevant chapters of this section of the thesis. Themes associated with each conception are presented in Table One.
TABLE ONE: OVERVIEW OF FINDINGS Conceptions and themes

<table>
<thead>
<tr>
<th>Conception</th>
<th>Themes within each conception</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONCEPTION ONE:</td>
<td>a. balancing a range of perspectives</td>
</tr>
<tr>
<td>Seeking and maintaining a balance</td>
<td>b. balancing group &amp; personal goals/needs</td>
</tr>
<tr>
<td></td>
<td>c. balancing unpaid work, paid work &amp; family life</td>
</tr>
<tr>
<td>CONCEPTION TWO:</td>
<td>a. personal &amp; social identity</td>
</tr>
<tr>
<td>Developing/ maintaining an identity</td>
<td>b. ecological literacy &amp; ecological identity</td>
</tr>
<tr>
<td></td>
<td>c. sense of place</td>
</tr>
<tr>
<td>CONCEPTIONS THREE and FOUR</td>
<td>a. personal learning &amp; networking experiences</td>
</tr>
<tr>
<td>Learning &amp; networking</td>
<td>b. group learning &amp; networking experiences</td>
</tr>
<tr>
<td>(discussed together)</td>
<td>c. reaching out to the community through learning and networking</td>
</tr>
<tr>
<td>CONCEPTION FIVE:</td>
<td>a. empowerment through personal &amp; group transformations</td>
</tr>
<tr>
<td>Empowerment</td>
<td>b. empowerment through economic security</td>
</tr>
<tr>
<td></td>
<td>c. empowerment through genuine partnerships that are transparent, inclusive &amp; based on negotiation</td>
</tr>
<tr>
<td>CONCEPTION SIX:</td>
<td>a. sustaining natural resources</td>
</tr>
<tr>
<td>Sustainable</td>
<td>b. sustaining catchment groups and programs</td>
</tr>
<tr>
<td></td>
<td>c. sustaining catchment volunteering as ‘a way of life’</td>
</tr>
</tbody>
</table>

The first conception, where catchment volunteering is seen as seeking and maintaining a balance is the focus of Chapter Six. It describes the experiences of respondents as they struggle to maintain balance in everyday aspects of their lives, from being a responsible parent, an employee, and a volunteer. Respondents also reveal the balance that is needed to consider the implications of complex social and environmental issues that face the average catchment volunteer in their efforts to contribute to natural resource management. The second conception to emerge from the study is that of developing/maintaining an identity and is the focus of Chapter Seven. The notion of ‘identity’ is complex, ranging from how people connect with a specific place, how they see themselves, or how others see them. Some respondents speak of the identity of the group to which they belong, and relate this to their wider community.
Conception Three, *learning* is experienced on a number of different levels by different respondents. For some, learning is related to personal growth, while others see learning as much broader, leading to community change. Conception Four *networking*, is experienced on personal, group and inter-group levels. Once again, there is a personal dimension, where networking provides rich personal experiences as well as a social dimension, where networking is a powerful tool for alerting and activating community members about catchment issues. The conceptions of learning and networking are discussed together in Chapter Eight, as they reinforce and complement each other, enabling both personal and community change. Personal and community change are further strengthened through experiences discussed under the conception of *empowerment* (Conception Five). Results discussed in Chapter Nine reveal that positive benefits to volunteers and their groups can accrue from a sense of empowerment. Personal empowerment was experienced as camaraderie, mutual respect, and gaining confidence. Group empowerment was experienced as finding creative solutions to achieve community support, political gains and overcome a chronic lack of resources. Chapter Ten focuses on the final conception, where catchment volunteering was experienced as *sustainable*. Notions of sustainability varied widely among respondents. Some referred to sustaining the group, others spoke of sustaining volunteering as a way of life, and some spoke of sustaining their local environment for future generations. This chapter builds on the previous ones, discussing further the ideas of sustainable community action and change.

Each of the conceptions is brought together diagrammatically to form an Outcome Space. This diagram forms a framework for discussion in Chapter Eleven. Apart from showing the relationship between conceptions described by catchment volunteers, the Outcome Space is used to develop several other conceptual and practical outcomes. For example, elements of the Outcome Space, together with Holling’s (1986) adaptive cycle, were combined to pinpoint factors influencing resilience and sustainability in stewardship groups. Chapter Eleven then concludes with guidelines for catchment volunteers and others involved in catchment care groups that may help to ensure the sustainability of catchment volunteering into the future.
Chapter Six

Broomsticks, biodiversity and balance

_Broomsticks only come with one handle and I’m used to flying solo…_

(Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

6.0 Introduction

This chapter explores some of the ways in which catchment volunteers seek and maintain balance in their volunteering activities. In this study, balance refers to ways of looking at environmental issues through time and space (e.g., short term, local views, versus more long-term, bioregional views), and in balancing personal activities and priorities with those of the groups and networks to which they belong. Balance also refers to the utilisation by voluntary organisations of rational science and traditional knowledge held by local communities.

Struggling to achieve balance is revealed in this study of catchment volunteers as an underlying theme, influencing all of the other conceptions. Striving for balance affects decision-making, problem-solving, individual actions and group dynamics. It influences how catchment volunteers see themselves, their groups and their communities. Balance is sought in learning; power struggles; personal and group-based networking; in the ways in which both individuals and groups tackle environmental issues; and perhaps most importantly, in how volunteers balance their time. The three themes that emerged within the conception of _seeking and maintaining balance_—balancing a range of perspectives; balancing group and personal goals/needs; and balancing unpaid work, paid work and family life, are discussed under sub-headings in the chapter. The discussions reflect upon some of ways that catchment volunteers struggle with balance.
6.1 Balancing a range of perspectives

Results suggest that having a diversity of members with opposing views can be beneficial, provided that everyone has the opportunity to listen and learn from each other. One respondent was a consultant working for a land developer. He joined his local catchment group to provide alternative points of view to various environmental issues. Although he said that he was generally pro-development, he was also interested in maintaining and conserving natural areas.

*My personal experience, really is to just really to be, give a balance between um the developer and the environmental point of view and so I contribute from that point of view* (Male, member of regional ICM group, personal interview, Interview No. 8)

Providing a balance of perspectives between groups and other stakeholders within the wider community was also seen as being important. One respondent spoke of the need to balance one’s feelings of frustrations about the slowness of bureaucratic processes with the knowledge that things can be achieved through persistence and patience:

*Always there are several or many perspectives on any given situation or event as the case may be and it is very frustrating, you have to be very patient and you have to, at the same time, be persistent and it is hard to be…* (Male 3, urban ICM group interview, Interview No. 1).

Another person in the group agreed and added:

*There is also a high degree of compromise that has to be all in mind at all times. It is all very well to be very hard nosed about something, and there are issues where one has to be hard nosed and to endeavour, not to compromise, but for the most part much of what we do is a compromise by both parties. If not, nothing gets done* (Male 4, urban ICM group interview, Interview No. 1).
A third person explained that this skill of balancing emotions when trying to achieve results is something that takes a long time to develop, and can only be learned through experience:

> You need to be very, very patient. You have got to understand the subtleties of things particularly political subjects that are going on around, because that is a skill, and from that you develop a certain awareness, a certain skill to see behind the scenes of things that coming straight from a university sort of background, they may not necessarily be aware of and that takes time to acquire, that background knowledge, hastening slowly, understanding things while you are very, very impatient (Male 5, urban ICM group interview, Interview No. 1).

Another person in the same group believed that one needs also to have a balanced view of the constraints on bureaucrats, and through mutual understandings of different perspectives, results can be reached:

> I have to admit though from a lot of others, having spent eight years in the Council, it has given me an understanding and appreciation of a person trying to do the right thing but being constrained and knowing the political, well it is coming down from the boss. I think the skill is in trying to understand those constraints operating on that particular bureaucrat when you’re dealing with them (Male 1, urban ICM group interview, Interview No. 1).

The theme of listening to and being listened to was strong among participants in this study. One participant explained that in order to achieve a balance in problem-solving, group members had to actively listen to other points of view:

> The thing I’ve learned that’s most difficult thing to do is to get people to switch off their line of thinking and switch on to somebody else’s line of thinking. And that probably includes me (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).
Adopting a balanced attitude that is receptive to new ideas helps achieve group goals in other ways as well. Part of the challenge of being an active member of a successful catchment volunteer group is to determine which direction to take, which policies and ‘best practices’ to adopt, and how to best utilise members’ skills to achieve group goals. For example, a few members of an urban catchment group had reservations about the quality of decisions being made on the basis of scientific knowledge alone.

One participant reflected upon the way in which knowledge has changed over time, and wondered if his group was making the right decision by relying solely on the expertise of current scientists to solve the problem of periodic flooding. This person seemed to think there was a chasm between the theory and practice of flood mitigation:

You have only got to look at the methodology then, current best practices if you like, for dealing with flooding. The current best practice is a total reverse of what it was only ten or fifteen years ago so I think those who are formulating the rules, and those who are on the ground attempting to carry them out, are all going through a learning process…(Male 2, urban ICM group interview, Interview No. 1).

Another person in the group confirmed these observations, and added:

People are still experimenting and trying different ways to see and treat the banks and treat the floodplains and everything else so I think that is quite interesting and I guess we will only learn that as we go along and maybe make mistakes (Female 1, urban ICM group interview, Interview No. 1).

The comments above reflect a ‘trial and error’ approach to environmental problem-solving. This approach was first described by Holling (1978) as ‘adaptive management’ and incorporates a high degree of accumulated knowledge and learning through experimentation, that is combined with the latest scientific methods.
6.1.1 Summary: balancing a range of perspectives

Results suggest that having a diversity of members within a stewardship group can result in new ways of dealing with issues of importance, provided that there are mechanisms in place that allow a diverse range of perspectives to be heard.

When groups adopt a trial and error approach to management, combining different kinds of knowledge, skills and expertise, the whole group learns and members are more likely to achieve successful outcomes. Part of the approach is deciding which skills, expertise and knowledge are required under different circumstances, and this ideally should entail collective decision-making. Being willing to listen to people outside the group is also important, as group members need to work with significant stakeholders to benefit the whole catchment. Often this requires patience, persistence and an understanding of different perspectives held within the community.

6.2 Balancing group and personal goals/needs

In this study, ‘the group’ refers to any of the organisations that participants belonged to when they were interviewed. Many participants described their experiences in terms of the balance between individual and group needs, and referred to some of the internal group processes that contributed to these experiences. Some participants acknowledged the need to balance personal activities with group priorities. For example they discussed the need for a balanced approach in personal and group-based networking; in the ways in which both individuals and groups tackle environmental issues; and between personal goals and organisational goals.

For some participants in this study, the challenge was to find a group where personal goals and group goals coincided. One respondent had a particular environmental issue that was of concern to her. She joined (and left) several community-based environmental groups, trying to see which one would help her with the issue:

*I’m….just finding which groups might cover the areas I’m interested in,… seeing which ones might be most beneficial to help me* (Female 1, rural Waterwatch, small group interview, Interview No.18).
She finally joined her local waterwatch group to see if she could raise awareness of her concerns through the group. At the time of the interview, she had not yet achieved this goal, as the goals of the organisation, although similar, did not coincide exactly with hers. Some respondents asserted that if groups focus on environmental outcomes alone, membership waxes and wanes according to the current issues being tackled by the group:

To attract people to the organisation, mostly it’s either on an interest basis or an issue basis....If it’s an issue that really concerns us, we can fight that issue or lobby as best we can for it. We will build up a membership, but once that issue dies, the membership drops out again. ... it’s certainly advertising, I believe, as well as education, to convince people to become a member of that organisation (Male 2, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).

Advertising and public education campaigns that are issue-driven may help to attract new members, but they do not always retain them. If a membership drive is based on environmental issues alone, numbers may increase in the short-term, but once the issue is resolved, can lead to a decline in membership. One respondent suggested that a specific volunteer program be established for volunteer groups and programs such as Landcare, that satisfies the needs of local people, as well as achieving the environmental outcomes of the organisation.

I think one of the main failings of Landcare, particularly around here in regards to volunteers, is sort of like, how it actually treats volunteers. Not treat but, it doesn’t have, like, a volunteer program as such and someone who’s there more for the people. The people who are involved with it are more for the outcomes, rather than sort of, supposed to be touchy feely with most of the community, which I think is one of the failings of Landcare management... So it’s there for managing the natural resources, rather than, managing’s not the right word but, managing people, making the people sort of, comfortable and happy with what they’re contributing - which, I think, is a bit of a failing (Male, member regional Landcare group, and Greening Australia, personal interview. Interview No.21).
As the respondent noted, people need to feel comfortable about their contributions, and be happy to stay with the group to reach some of their own goals. If the needs of volunteers are neglected, problems may arise. One participant described a situation in which the volunteer coordinator pursued group goals to the neglect of the needs of individual volunteers.

*She* [the volunteer coordinator] *is definitely able to excite the interest of people and motivate them initially to become involved at you know, to maintain their motivation for you know, a short period. ....we’ve had a fair bit of high turnover with our volunteers, which is not to our credit. .... her energy and commitment is almost frightening. And because of that, well she drives herself very, very hard. She drives everyone very, who would be close to her very hard, and of course she would also drive (other) volunteers very hard....There’s been a massive price paid. And that is you know, there’s been a lot of alienation of people outside the organisation, and inside the organisation.* … (Male, urban Landcare, personal interview. Interview No. 2).

Such a lack of balance is counterproductive to voluntary organisations, as volunteers may perceive a lack of caring by key members of organisation towards them. In the example above, a lack of balance resulted in a high turnover of volunteers. Through personal networks, disenchanted volunteers contributed to the negative reputation of the organisation in the wider community. Conversely, in situations where there is a lack of direction in the group, and group goals are not achieved, there is frustration and disenchantment:

*The problem with the group is that it occasionally loses direction ... some of the projects that we’ve been involved with have gone off the rails ...Like all activities in business, they actually need to be managed and they weren’t managed, unfortunately and all these wonderful people did this great work and lot of them actually fell over and I find that really frustrating. And what is does it’s sort of demeaning to the people that did it and the group and I thought, hang on, there must have been a better way of doing that* (Male, member of regional ICM group, personal interview, Interview No. 8)
In general, people need to feel that they are volunteering their time for a worthwhile cause (Pearce, 1993). If efforts are wasted, volunteers can become demoralised and gradually leave the organisation. On the other hand, some respondents admitted that it is purely the social benefits that keep some volunteers returning regularly, as this person observed:

There are some people who come to our tree plantings for the social interaction that it provides. In a loose unstructured way, where you’ve got a task to do, but you’re side by side with other people and you can talk (Female, regional Landcare group, small group interview, Interview No. 24).

Social benefits were seen by members of one well-established group as the key to retaining their volunteer numbers. Their organisational goals were readily reached as members worked together in a convivial friendly atmosphere. This conversation between two individuals of the group illustrates why it is so successful:

John’s wife used to come out with us every Friday (Female 1, regional tree-planting group. Small group interview. Interview No. 22).

We used to have working bees every Friday, back then. (Female 3)

It’s still going…(Female 2)

…twenty years later…(Female 1)

…every Friday (Female 3)

And that is part of the strength of the organisation, because you can say to people. “Come in on Friday”. And not only will they get to meet the friendly members, but they will get the expert advice from Neil and his merry men on the Nursery staff. They can find out what to plant and how to plant it. They can go away, if they join, up with ten trees in their hand after they’ve worked with us a bit, and learned about it, and if it’s a big project and Neil thinks it’s of importance, they can access more trees and get volunteers and staff to come and help them plant them (Female 3, regional tree-planting group, small group interview, Interview No. 22).
The group had worked out how to combine individual and group goals, as well as achieving long-term social and environmental outcomes. Stewardship groups provided benefits for some short-term members as well. The following comments were made by a backpacker who was looking for something unusual, more of an adventure than the usual sort of travelling experience, which is why he chose to volunteer for a conservation group based in a rainforest national park:

*I did it [volunteering] originally, because a lot of my friends are backpacking and it’s quite popular at home, especially Australia, for English people to come here. Their usual track is to go straight down the East Coast, go to all the Tourist bars and whatever and just basically just leave England to come to Australia and do exactly what they do at home, but in a different country. So, we actually, she’s my girlfriend and she found this program and we both thought it was a good idea and a budget way as well to see like, different parts of Australia you would never see* (Male 2, international volunteers, group interview. Interview No.16).

Another in the group added:

*It’s a good chance to see a part of Australia, you never would if you just went backpacking or any other way. But then you’ve got to be prepared to go to remote places or whatever where there’s no people or very few people and be able to stay there for like a week or two without going mad* (Male 4, international volunteers, group interview. Interview No.16).

Although acknowledging that their initial motivation was based on personal desires, respondents in the same group interview talked about the benefits of their work to local communities:

*If it [environmental volunteering] wasn’t there, there would be a big gap in the community, I reckon... the Council would have to pay people to do that work, if we hadn’t done it, which would mean that there would be no money for other things. So, the community would miss out in that way* (Male 4, international volunteers, group interview. Interview No.16).
Once again, recruitment based on the needs and aspirations of individuals can successfully lead to the accomplishment of group goals. In the situation described above, a particular group of individuals (young travellers) are recruited for short-term projects. So even when group goals and personal goals do not completely overlap, there are mutual benefits to both the group and individual members. Successful groups adopt a flexible approach to the way they involve volunteers. For example, some groups allow members to work individually on projects in their own homes, on their own land or along their stretch of a waterway, provided that the work the members are doing helps to accomplish group goals. At the same time, these groups also provide for people who join for the social aspects of volunteering. One person explained why she liked her local Landcare group:

*Broomsticks only come with one handle and I’m used to flying solo... working in groups, you know, the expectation that one will sort of sit on committees and work with other people and they enjoy the social aspect of it, but I simply can’t be bothered with it* (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

Despite not being a team player, she explained how the work she does benefits her Landcare group:

*I now produce information packs for Primary Producers, ....I’ve just done one for water, and I’ve done stuff all about animals and things like that and I’m currently designing a web site... ... all this is going on it for our Landcare group* (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

As a member of that group, she was willing to use her skills and resources to contribute to the group goals. At the same time she also personally benefited, as she gained a sense of satisfaction and personal achievement in the process. O’Hara (2003) maintains that personal transformations are accelerated at times when there is a conscious recognition that the social group to which a person belongs is an entity with its own direction and purpose, and there is a willingness on the part of that member to contribute to these goals. Personal transformations lead people to new levels of
awareness. In the case of stewardship groups, links between people and nature become more apparent, as this person comments:

Volunteering helps me realise and reinforce how every thing you do impacts on the environment and the environment’s what sustains us. I think it’s the whole circular thing of life (Female 2, regional Landcare group, small group interview, Interview No.7).

According to Schama (1995), people often think of nature and society as being separate, yet catchment volunteering offers a way for people to see links between both. The same person who commented above, said that by becoming a volunteer, she had begun to think beyond her own needs, and look at the needs of the group, her community and the local environment. She was critical of people in the community who did not look beyond their own needs.

You can’t spend all your time thinking about yourself. You need to spend time working with other people and I think a lot of people in retirement this is one of their problems, that they spend all their time thinking about themselves. And there’s too many other things to think about. And if we work together we can all achieve so much. That’s my attitude … (Female 2, regional Landcare, small group interview, Interview No.7).

6.2.1 Summary: balancing group and personal goals/needs

Results indicate that many participants experienced tension between personal and group needs. When group goals were pushed to such an extent that volunteers felt neglected, the whole organisation could suffer resulting in a high turnover of volunteers and unfinished projects. On the other hand, if volunteers fail to share collective goals, a group can lose direction, again resulting in unfinished tasks, loss of morale and disappointment. Some people joined stewardship groups because they were hoping to use the group as a vehicle for pursuing their own environmental goals. Once again, this can lead to disenchantment, if group goals and personal goals do not coincide. In some groups, especially the ones that were well established and accepted in the wider community, volunteers spoke of the deep satisfaction and pleasure that...
they gained. This is because their personal goals (social and environmental) coincided with the social and environmental goals of the group. Even when group goals and personal goals do not completely overlap, there are mutual benefits to both the group and individual members. This is especially true for groups that adopt a flexible approach to the way they involve volunteers. Catchment volunteering provides new ways for people to be reconnected to nature and to their communities. It can be a transformative experience where individuals, groups and whole communities benefit.

6.3 Balancing unpaid work, paid work and family life

A recurring theme revealed by the analysis of interviews was the need to balance unpaid work, paid work and family life. One respondent talked about the amount of time each week she dedicated to her voluntary activities:

*Often at least 3 nights a week, I do stuff at home, until, you know, half past eleven at night, because you just can’t get everything done in the day and somehow you’ve just got to get it done* (Female, urban Landcare group, personal interview. Interview No.4).

One participant from the group above observed that many people volunteered for a number of different organisations, and had to take care that they did not over-commit themselves to voluntary work, at the expense of their health or their personal lives:

*The same people volunteer for a wide range of organisations and groups, and some spread themselves too thinly* (Male 1, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

The following quotation was from a person who had obviously thought previously about the need for balance in his life when he said:

*You’ve got to weigh up your family life on the one hand, and your work and then your, this is just supposedly a recreation, your life is split into thirds, well I don’t have recreation, I have our catchment group. Which is my work, my*
real work. It’s just that that work doesn’t get paid (Male, urban Landcare, personal interview. Interview No. 2).

The same person also expressed why it is difficult to maintain this balance:

There’s a need here, I don’t enjoy this [volunteering] at the moment, I must admit it. It’s, it’s killing me, but I’ve got to keep going, there’s just too much at stake (Male, urban Landcare, personal interview. Interview No.2).

His passion and commitment to catchment volunteering, especially when he could see so clearly what he believed needed to be achieved, prevented him from keeping a balance in his life. He knew his personal life was suffering, but could not see a way out. Another person interviewed from a different group, knew she had similar tendencies, and deliberately strove to maintain a balance between volunteering and other aspects of her life. She spoke of what could happen, if the balance is not maintained:

I say to people, I am my father’s daughter, and when my father retired we used to have to make an appointment with him to see him, because he was just never home. He was treasurer of this and President of that and I think he thought that no one could do without him and then he died suddenly from a heart attack and most organisations did manage without him but one didn’t, it folded….that’s certainly not what’s going to happen to me ... (Female 1, regional Landcare group, small group interview, Interview No.7).

A respondent in a different interview warned of what might happen if volunteers didn’t balance their time effectively:

[You] need to be careful that you don’t get burnt out – it’s hard when you are so passionate about what you do (Female 1, mixed rural group, Landcare and Coastcare members, group interview, interview No. 14).

In some groups, however, volunteers managed to balance their time well, as this respondent with school-aged children explained:
I always have to go at 2.30 no matter what...I just think that you have just got to be realistic and say well, we are doing the best we can ... (Female, urban Landcare, individual interview, interview No.4).

6.3.1 Summary: balancing unpaid work, paid work and family life
A recurring theme revealed by the analysis of interviews was the need to balance unpaid work, paid work and family life. Some individuals were ‘joiners’. They became members of a wide range of different voluntary organisations, wishing to make contributions to their local community. Others committed almost all of their spare time to just one organisation, as they had a deep commitment to the goals of that particular group. Some volunteers, although recognising the need to keep a balanced perspective on their volunteering activities, found it very difficult to do, as they were extremely dedicated to their work. Several respondents talked about the fear of over-committing themselves and deliberately made an effort to avoid ‘burnout’. For example, some had developed strategies to maintain a balanced perspective – they deliberately chose to volunteer for a pre-determined time each week, but at the same time, ensured that the work they did as a volunteer was focused around group priorities, rather than their own needs. In other words, they allocated their time carefully to particular volunteer tasks.

6.4 Balance – the heart of civil society

… … to seek equilibrium is to engage in a dynamic of constant movement, constant tension, yet also to remain in the same place – the place of our real life and real society (Saul, 2001, p317).

Experiences described by participants revealed that balance is achieved in a number of ways, and that this balance is the key to maintaining personal and group momentum. For example, solving complex problems may be easier if volunteers listen to, and weigh up, a range of opinions held by different group members, and if opinions are sought beyond those held by group members. Seeing another’s point of view, and the constraints under which different people in different organisations
operate, can help volunteers deal with a range of issues. Another dimension of the conception of ‘balance’ is the need to balance emotions, to work towards goals steadily, and to develop patience. Making decisions also requires a balanced perspective, acknowledging that information, technology and ‘best practice’ that may be held in high esteem today, may not be relevant in the future. These points are exemplified by quotations in section 6.1, and confirm Carr’s observations that a new trend towards balancing scientific rationality with local knowledge was emerging in many rural Australian communities, especially in regard to land management practices (Carr, 2002)

For some participants ‘balance’ was sought in personal and group goals. Where this was achieved, participants expressed satisfaction with their voluntary work. Conversely, where group goals and individual goals were not aligned, participants expressed frustration. Groups that balanced social and environmental goals, and satisfied members’ personal aspirations, tended to retain members for long periods. Heilpern, Wright & Tkachenko (2000) comment that groups such as Landcare provide a vehicle for reconnecting individuals to their communities once again. By working together to achieve group goals, individuals give up some of their personal desires for the collective good (refer to Section 6.2). Yet, even when participants acknowledged that the work they were doing had great benefits, they recognised the need to balance unpaid work, paid work and family life. The participants’ reflections reinforce the observations of Byron, Curtis & Lockwood (2001) who maintain that too many voluntary commitments may have adverse personal consequences such as poor health, exhaustion, and reduced enthusiasm (see participants quotations in Section 6.3)

Seeking balance, according to Saul (2001) is the essence of civilisation. In turn, volunteering is at the heart of civil society (Bell, 1999). Central to civil society is the notion of identity – the way citizens and communities see themselves, and are seen by others (Calhoun et al, 2002). This is the subject of the next chapter, Chapter Seven, where discussion is based on respondents’ experiences of the conception of identity in terms of a sense of place; bioregional identity; ecological literacy and ecological identity; a sense of history; caring for landscapes; and personal and social identity.
Chapter Seven

Identity - people and places - past and present

What John said the other day on his 80th birthday, it nearly made me cry. He’s been coming for donkey’s years……We were having a cake and all that and I patted him on the back very affectionately and hugged him and he said, “This is the highlight of my week, I wouldn’t miss it”

(Female 3, regional tree-planting group, small group interview, Interview No. 22).

7.0 Introduction

This section discusses the second major conception to emerge from the study. The conception of developing/maintaining an identity was held by almost all of the participants to a greater or lesser degree. Some volunteers spoke of their experiences almost entirely in terms of their identity, and the consequences (both positive and negative) of being identified in certain ways by members of their group and by outsiders. A few participants spoke of identity in terms of the way that they saw each other and themselves. Results suggest that the notion of ‘identity’ includes a sense of belonging, responsibility, values and emotions, shared by members of a group. This includes the ways in which a group is regarded in the wider community, and how a group sees itself within its community.

Through friendships developed while working, and through regular visits to the same locations, many volunteers developed a strong affinity with the land or waterway where their work is undertaken. Some respondents volunteered because they already had an affinity with a particular place, others developed attachments to places through
their volunteering efforts. Identification with a particular place was closely related to the development of local knowledge or ecological literacy. Some people volunteered because they wanted to develop their ecological literacy about particular sites, while for others, the development of ecological literacy strengthened their affinity with the places where volunteering took place. Some respondents described how ecological literacy led to the development of a deeper ecological consciousness and connection with natural systems. Others took on a more general ecological identity, linked to common group values and to caring about the landscape. For some individuals, caring about the landscape had an almost religious intensity. Many respondents referred to a sense of place, and this was strongest where local residents had collective memories, experiences and shared history of a site. One respondent believed that a sense of place could be consciously developed through their catchment group. Results indicate that a sense of place relates to the development of localised social capital and social learning.

Aspects of the conception of developing/maintaining an identity will be discussed under the following sub-headings, which are the themes held within the conception: personal and social identity; ecological literacy and ecological identity; and a sense of place. The chapter concludes with a discussion of this conception as a motivator for recruiting and retaining volunteers.

7.1 Personal and social identity

A person’s identity is formed largely by descriptions of the personal interests they have, and by the combination of social groups to which that person belongs. Results of this study indicate that when individuals identify strongly with a group, there is a general caring attitude and sense of belonging evident among group members, as this respondent states:

*It’s almost like a duty of care of everyone else, like when you’re working you find yourself ….making sure that you know where people are, and you’re not too hot and there’s enough water, and you’re not killing anyone with tools*
Apart from caring about the physical comfort of others, some respondents also looked after the emotional well-being of others in their group, as this comment shows:

*We find ourselves in counselling situations. Because we are there and we can actually draw it, we can centre it on a physical task, so in that way, people who are troubled about something can work it out through potting up or doing something else* (Female, regional Landcare group, small group interview, Interview No. 24)

Comments like these support the findings of Schervish & Havens, (2002, p49), who state that ‘caring behaviour is motivated by identification with the needs of others’.

Hogg & Abrahms (1988, p25) refer to the development of social relationships among group members as contributing to the ‘social identity’ of the group. They distinguish between social identity and personal identity in the following way:

Social identity contains social identifications: identity –contingent self descriptions deriving from membership in social categories (nationality, sex, race, occupation, sports teams, and more short-lived and transient group memberships). Personal identity contains personal identifications: self-descriptions which are ‘more personal in nature and that usually denote specific attributes of the individual’ (Gergen 1971: 62) (eg idiosyncratic descriptions of self which are essentially tied to and emerge from close and enduring personal relationships).

Hogg & Abrahms explain that social groups are devoid of social identity until members develop relationships within their group which help to distinguish it from other groups. The values that have accrued over time are commonly held by members of each group largely because of the way in which individuals in each group relate to each other (Hogg & Abrahms, 1988).

Social identity is also manifested by the ways in which group members compare and contrast themselves with members of other social groups. In this study, one person compared herself with members of other volunteering groups, to clearly identify the type of voluntary work she identified with:

*We are working in the environment, rather than doing something like meals on wheels working with people, looking after the elderly, respite care or*
When asked why he chose to do catchment volunteering, this person responded:

*I care for the environment, I care for people who interact upon environment and it just seemed to me the average person around you did not give me the impression that they cared deeply as I did. I may be wrong but that is how you get involved* (Male 2, urban ICM group interview, Interview No. 1).

In the three cases above, the respondents distinguished environmental volunteering from other forms of volunteering, by focusing on the heightened levels of ecological consciousness that were accomplished through catchment volunteering. These comments agree with social scientists Hogg & Abrahms (1988) who state that when describing themselves, people tend to identify strongly with some particular social categories, while distancing themselves from others. In addition, people tend to compare and contrast themselves with others in their community, and this also adds to a person’s self-image. These descriptions of self, or categories of description, help people to identify who they are (Hogg & Abrahms, 1988; Kilgore, 1999). Yet the way in which labels are used to by others to identify individuals often leads to stereotyping, and in turn may not accurately reflect one’s personal identity at all (Hogg & Abrahms, 1988). For example, in this study, some respondents did not identify with the label ‘volunteer’ at all, even though they fitted the description. One person explained why some of the people she knew didn’t want to become volunteers:

*A lot of them say I didn’t want to think about volunteering because they originally think of you know, …meals on wheels or something like that and they say they didn’t want to be in an office. A friend of mine..., she goes to one particular organisation - their volunteers go in and all they do is fold letters and stick them in envelopes for 6 hours a day, three days a week* (Female, member of regional Waterwatch group, personal interview, Interview No. 20).

Yet while this image is generally boring and uninspiring, it is very different to the image that others conjure up when thinking about catchment volunteering. One person
thought their group had a negative image because the volunteers were seen as being ‘do-gooders’ and self-righteous:

_We are generally seen as narks, naggers and do-gooders. There is an awful lot of that and that adds up to resistance_ (Male 3, urban ICM group interview, Interview No. 1).

One respondent believed the term ‘volunteering’ had connotations of subservience:

_So a volunteer to me is somebody who does something that somebody else wants them to do and I don’t, I’m not good at that_ (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).

To some, volunteering efforts were not seen as being of equal value as those of paid professionals. As one person said:

_Jeff as a professional, had a slight problem, I think in the beginning, in that, he wasn’t (recognised), not that he was keen for the money, but just because of his professional standing, you know. Deemed to just suddenly be expected to do it for nothing. And I think it was the recognition, the non-recognition of the professional standing more than the money, I think that was, but he’s sort of gotten quite used to it now_ (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

She added:

_It’s been a fight to establish ourselves, not as volunteers, as non-volunteers, probably. Well, as volunteers, but to be taken on a professional level by government_ (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

One person went further, claiming that there have been occasions when the volunteers who identified themselves as competent land managers, were managed by paid staff who were (apparently) less competent than themselves:
In some areas, it gets to a point where you see people, with perhaps seemingly less competence and less ability than we as volunteers might display, being paid big wages to manage us. And so there can be an element of disenchantment there (Male 1, urban ICM group interview, Interview No. 1).

A few interviewees identified themselves as ‘activists’ rather than volunteers within a particular organisation, even though they fitted the formal definition of a volunteer used in this research.

_I always look upon a volunteer as somebody who dishes out meals on wheels or mans the cake stall to raise some money for the puppies or something. I don’t see myself so much as a volunteer as an activist_ (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).

These comments reinforce Bell’s (1999) view that the volunteer movement should not be automatically synonymous with the ‘third sector’ where volunteering is perceived as a service. Despite the range of negative comments above, the term ‘volunteering’ was not seen by the majority of respondents in this way. Indeed, the majority saw ‘volunteering’ as a positive label, providing a myriad of opportunities. One person explained that volunteering provided the opportunity to develop her personal and professional interests in the environment, and to maintain her personal identity as an environmentalist:

_I’m just finishing my Environmental Science degree, I haven’t got a job at the moment so, and it’s been like that for a few months now, I’ve been looking for work and I thought this would be a good way for me to do, get some practical experience in an environmental area and work outside, I do like working outdoors and just meeting people, it’s better than sitting at home and you know, keep me motivated and the actual experience outdoors, and it may get me a job sometime_ (Female 2, regional group of ACT volunteers, group interview, Interview No. 19).
One respondent described himself in terms of the values he held, and the extent to which they were shared by others in his group:

> And I suppose there’s people like myself [in the group] who are fairly hard, fairly staunch and prepared to go to jail for what they think. There are people [in the group] that are from a different generation than I am, slightly the next generation that way, who are really, who are into it, but aren’t prepared to really go, you know…(Male, urban Landcare, personal interview. Interview No.3).

He spoke about how his values and attitudes had changed over time, shaping his personal identity, and whole way of life:

> I’ve deliberately dematerialised my existence, because I just know that that’s just the way, what can one person do? You know, well quite a bit, you know, I mean I don’t drink Coca-Cola, I don’t eat McDonalds, it just doesn’t worry me, I just choose not to (Male, urban Landcare, personal interview. Interview No.3).

Thus, values held by individuals contribute to his/her own personal identity, and may not be identical to those of the group. Although a deeply committed member of his catchment group, the interviewee acknowledged that not everyone in the group has that same level of environmental commitment that he has. Yet in other catchment groups, people expressed feelings of enjoying the company of the other members of their group, not just because it was an opportunity to meet like-minded people (although this was commonly stated) but also because there was a sense of shared values, as this person explained:

> I just enjoy working with people who have got such great ethics, you know. The people here just all believe in the same sorts of things and there’s no great conflicts (Female 1, regional Landcare, small group interview, Interview No.7).
Organisations such as Landcare allow volunteers to undertake a range of work, and are often based on partnerships rather than merely providing a service. Through informal networking and sharing of information, members can help achieve collective outcomes. One Landcare coordinator described her experiences:

> Whenever you go out to the pubs around here, farmers always bring up issues and I always end up talking Landcare or environmental issues whether I like it or not.....they seem to identify me with that (Female 1, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

The person quoted above did not mind being identified as the ‘Landcare person’ as it reflected quite accurately who she was, and what she was interested in. Yet a few people in this study were surprised at how others in their community identified them, as they did not see themselves in that way. One person exclaimed:

> I saw myself described as a rural community activist the other day in one of the Posts [local papers], and I thought oh God, I hope not (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

She recognised that the way others saw her contributed to her personal identity, and it wasn’t necessarily an accurate description. This realisation is reinforced by Saul (2001) who believes that our image of ourselves is often determined by other members of society, yet that image is not necessarily correct:

> Our own idea of our personality – of our talents, characteristics and virtues – may be exact or delusionary or anywhere in between. The way others see us may be just as exact or inexact (Saul, 2001, p6).

As a member of a conservative rural community, the respondent quoted above would rather not be regarded as one who might go against the general wishes of her community, partly because she needed local support to achieve her group’s conservation aims. She continued:
To establish myself as a person working in the rural industry was not easy. Coming from the Queensland Conservation Council, to get the credibility and to get the trust was quite, it required a leap of faith on their part, I thought (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

She clearly saw herself as distinctly different from the majority of people in her local community. To make that ‘leap of faith’ happen, the respondent knew that she had to first demonstrate to the community that she could understand and respect the community’s perspectives on conservation, even though she may not hold the same views. Thus, she had to adjust her personal image to become more aligned with that of the community.

In a reverse situation, in another rural community, respondents explained that they wanted to take part in the group activities (in this instance, water quality monitoring), but they did not want to be personally identified with the group, for fear of criticism by others in the community. In other words, they identified strongly with their local community and did not want to be seen differently by others in the community. One person in the group explained:

You have to be careful who you mention it [water quality monitoring] to, you know because people get a bit, you know, arrogant if you say anything. Don’t you mention that to anyone, we’ll be in trouble. But you just want to keep an eye on it (the water)… (Female 5, rural Waterwatch, group interview, Interview No.13).

Carr (2002) found that some individuals in the communities she studied had similar fears. Nevertheless, to be an influential force in our communities, catchment volunteering has to be accepted by the wider community (Bell, 1999). This may be very difficult to achieve, especially in some rural areas where new ideas take time to be widely accepted. The following person describes the image of her group within the local community, and why her group is not influential in the area:
With a Landcare group, they probably think well I don’t mind getting all the information but I’m not that much of a greenie that I’m going to be up there planting trees. I’ll think you’ll find that with a lot of members, the older ones. And it’s just like a you need a whole paradigm change there to get people going (Female 2, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

She believed that a paradigm change within the community was unlikely to occur, as long as the older farmers retained their way of life and current farming practices. Thus it seems there has to be adjustments and realignments of identity within individuals, groups and the wider community to reach a common understanding of how each should be regarded by the other and what each wants to achieve. Such realignments occur in every human society to a greater or lesser extent (Calhoun et al, 2002). Indeed, Calhoun et al (2002) contend that there is no such thing as true ‘individualism’ outside one’s society, and that individuals are largely shaped by their social relationships – their aspirations and the ability to fulfil them are largely derived from the social institutions available to each individual. On the other hand, personal characteristics contribute to the nature of the society to which individuals belong. Thus, both social and individual identity becomes central to understanding the balance between individuals and civil society (Calhoun et al, 2002).

One respondent had already made this connection. He felt that his group should be more focused on what the local community wanted, to reflect the change in membership over the years, which had changed from urban conservationists to rural people.

*I think here we need to... get more of an identity... it’s sort of like having a crisis of late... we need to sort of focus back more on to getting into the rural residential areas ... ... your activity focus is really a reflection of your membership, so if your membership changes, your direction changes so we should pick up a bit more on rural people within the particular region* (Male, member regional Landcare group, and Greening Australia, personal interview. Interview No.21).
A local resident in a different area spoke of the way in which her Landcare group has changed over time:

*When we first started…. we were just a group that met in people’s homes and we were sort of regarded as a bit radical greenie type people, to evolve to a stage now, with people coming to us, ..., it’s a whole change in their perception of what Landcare is* (Female 3, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

These changes have occurred slowly through the build up of trust between the organisation and the wider community. Another respondent described that the identity of the community group to which she initially belonged did not match her own personal identity to any great extent, so she formed her own group, based around environmental issues:

*So among others, I broke away from that [resident’s group] and formed this focus group, which was focussing on the environment, we would deal with environmental stuff. Well, it’s now the largest organisation in this area, because this is an area that is particularly focussed on environment* (Female, regional Landcare group, small group interview, Interview No. 24).

The respondent quoted above described how her group began:

*Suddenly, I was part of a community. And while I had been, I had never been aware that I had been in the past. But this [development proposal] was the awakening. Then I did a bit of door knocking and said to the other people, “Do you realise what this development down here is all about?” So that was the first introduction to the community and then in order to deal with those sorts of things, you find that you radiate to other people who are also having concerns. Then I became part of an organisation that was dealing with that sort of stuff* (Female, member of regional Landcare group Small group interview. Interview No. 24).
Seeing her community threatened by a development proposal was the trigger that allowed her to recognise herself as part of her community. Through her door-knocking campaign, the respondent felt that there were people in the community who shared her values and concerns. She also spoke in terms of her personal transformation, and the transformation of her whole community, through the experiences afforded by her group:

*In the past, the Council didn’t want the community to know too much, so that it could get on with its job…. But a whole lot of that sort of stuff has now been cleaned up. We are much more aware. It’s not just my growth, but I’m sure that it’s the growth within the community at large. This community didn’t have this organisation, ten years ago. It now does and we are able to get information out through our newsletter and the like. So it is a more informed community* (Female, member of regional Landcare group Small group interview. Interview No. 24).

Over time, knowledge and expertise were built on within the group, and through this the groups’ identity was strengthened in the local community:

*Some of the things we did poorly at the beginning we’re now doing better. That’s paying off in terms, I think, of people seeing us as a more professional organisation. And so we are getting people coming into tree-planting who might have been a bit reluctant before. So I think there is a sense of which there is a maturity going on at this level* (Female, regional Landcare group, small group interview, Interview No. 24).

Milbrath (1989) refers to this type of collective activity as ‘social learning’, (discussed in Chapter Two) where social cues about what is acceptable, valid and worthwhile are learnt and shared over long periods of time (Kilpatrick, Bell & Falk, 1998). Social learning through shared experiences can help develop collective memories (Berkes & Folke, 2002). Ultimately, individuals and their ‘mental models’ are transformed as the collective experiences, memories and visions shape the group’s identity (O’Hara, 2003). These themes are discussed further in Chapter Eight under the conceptions of learning and networking.
7.2.1 Summary: personal and social identity

Respondents spoke of the ways in which their volunteering activities contributed to both personal and social identity. Several respondents identified the type of work they did as being quite different to other forms of volunteering by focusing on the heightened levels of ecological consciousness that were accomplished through catchment volunteering. The way in which other people saw volunteers in the community had both positive and negative impacts on respondents and the groups to which they belonged.

Results indicate that when individuals identify strongly with a group, there is a general caring attitude and sense of belonging evident among group members. This ‘social identity’ takes time to develop, and is often accompanied by the development of a common set of values and attitudes shared to a greater or lesser extent by group members. When personal and group identities, values and visions overlapped, respondents noted personal and group transformations occurring. In some instances the group also influenced and transformed the wider community. In other situations, however, especially in areas where the group identity was vastly different to that of the local community, it was much harder to influence the local community.

7.2 Ecological literacy and ecological identity

In some cases, identifying with one’s biophysical surroundings can be very strong such that it leads to the building of local knowledge around an area. One Waterwatch coordinator spoke of knowledge that members of her group have gained by living beside the river:

*Everyone who lives on the river has got such a wealth of knowledge about the river. I went to Maria’s place and they were telling me about the fish that live there in the waterhole down from, you know, all the stuff about the river that I wouldn’t have any idea about. I’m really a foreigner to this area, strictly speaking, and so many locals have this wealth of knowledge about the history*
Thomashow (1995) asserts that identity can be built through memories, story-telling and local knowledge, and contribute to a person’s ecological literacy. (This was defined in Chapter Two as a love of nature stimulating curiosity and learning about a particular natural system). Having the opportunity to develop one’s ecological literacy was a motivator for many of the volunteers. One respondent explained that she wanted to join the local Waterwatch group so she could learn more about the river system where she played as a child.

*I’ve got a bit of a bower-bird mind, I like to know things. I like to know why things happen and I’ve lived here on the river all my life. It was my playground when I was a kid and I just like to know more about it, not necessarily on a scientific level but on a higher level than I do. I understand ...what it does, but sometimes you need to know the reason why* (Female 1, rural Waterwatch, group interview, Interview No.13).

She goes on to say:

*There was a particular log that I used to crawl out on, walk out on to and you could sit there and watch everything swim past. You know, here went two gar and there went some spangled perch and there was a school of bony bream and well now you can’t see diddly squat, because there’s just weeds everywhere....the health of the river in that respect has gone downhill since they took the mullet out* [by constructing a dam] (Female 1, rural Waterwatch, group interview, Interview No.13).

She obviously already knew quite a lot about the river, from her own observations, and by reflecting on her direct experiences. Compared with her coordinator, this volunteer had a wealth of ecological knowledge. The coordinator recognised the value of this knowledge in environmental problem-solving:
[Local knowledge] is really important, when you are preparing or looking at the impacts, say where does this phosphate come from? ...I wouldn’t have had that knowledge without tapping into these people who live beside the river....We did a bit of a workshop just as sort of half training, half sharing ideas and knowledge, because I was sort of, well, I know a bit of the technical side, but I don’t know the history that years ago there was lots of fish in the river and now there isn’t any...(Female 4, rural Waterwatch, group interview, Interview No.13).

The coordinator’s experiences confirm the assertions by Irwin (2001) that human qualities such as ecological literacy and identity are useful in applying solutions to environmental problems.

Thomashow (1995) explains that ecological literacy complements ecological identity so well because both are based on direct experiences in particular places, and personal reflections about those experiences. It is the love of nature that triggers an interest in learning. Thomashow (1995) asserts that people who have a strong ecological identity also hold particular values. He explains that ecological identity extends to a deep caring for the landscape that eventually forms the basis of a land ethic (Thomashow, 1995). Aldo Leopold (1949) describes a land ethic as something that reflects an individual’s responsibility, caring and love for the health and well-being of the Earth. It encompasses personal convictions, values and respect for the Earth, through the development of an ecological consciousness. In this study one respondent described how the ecological identity and personal convictions of people in her group contribute to the sense of satisfaction they gain from their activities:

Some of our farmers come along and they plant a tree because they know that it’s going to stop erosion. But some of our people come along because they are planting trees because they know that that it is the right thing to do...You do get satisfaction from feeling that you have done something worthwhile (Female 3, regional tree-planting group, small group interview, Interview No. 22).
Caring for the environment was certainly an important motivator for many of the volunteers. Some explained how caring for the environment was an extension of personal care:

*If we care about ourselves, then it sort of extends to caring about where we live and the environment... really the first step was well, caring about what you do to yourself and, you know, what you eat and what you drink, it sort of extends, you can extend that to everything around you. It’s a very holistic thing* (Female 2, regional Landcare, small group interview, Interview No.7).

Schervish & Havens, (2002, p51), assert that caring behaviour manifests itself in a variety of ways. It may involve praying, treating others with respect, helping family members and friends in a range of daily activities, and lending emotional support to those in need.

Profound commitment to the environment may be what transforms an area into a ‘landscape’. Seddon (1997) and Schama (1995) both believe that people create landscapes over time. Nature provides the raw materials, which are then transformed through experiences, memories and actions of the human community:

….to transform it [an environment] into landscape demands the powers of the seeing human eye and the loving human hand. …. (Seddon, 1997, p 111).

These local level landscape transformations can contribute to the development of a global cosmology, ultimately resulting in global sustainability (O’Sullivan, 1999).

To some volunteers, understanding and caring about landscapes has a religious quality, as expressed by this urban land carer:

*There’s a commonality, it’s quietly religious, I suppose, even to some people. It is to me, it is sort of, it’s like a religious, it’s like a religious activity so you share a common bond in, it is a little bit mundane, people do really want to spend most of their time planting trees, and nothing else.....A person’s really got to have it from deep within, that sort of commitment, I suppose* (Male, urban Landcare, personal interview. Interview No.3).
Seeing the ecological identity of their area destroyed is particularly painful for some of the interviewees, particularly if they care deeply for the environment. One person described these feelings and explained why, in his experience, environmental volunteering differed from other voluntary work:

_Bush care work, you can work for ten years, you can do fantastic work and it’s very hard work and on a hot windy day a nice scumbag will come along and burn the lot. And you must be prepared that that can happen, and not let it destroy you….But that is the difference, someone in the community can wilfully undo all your years, and years of work. And I think that’s different to most volunteering, that’s one aspect you have to, you can suffer, and it’s very, ah you do suffer_ (Male, urban Bushcare group, personal interview. Interview No.6).

The type of suffering experienced by the volunteer above, is well known among traditional custodians of the land as Yunupingu (1997, p2-3) explained:

_In the early 1960’s, I saw bulldozers rip through our Gumatj country in north-east Arnhem Land. I watched my father stand in front of them to stop them clearing sacred trees and saw him chase away the drivers with an axe. I watched him cry when our sacred waterhole was bulldozed. It was one of our Dreamings and a source of our water. I saw a township wreck our beautiful homeland forever. I saw my father suffering physically when this was happening. I can never forget that. This land is something that is always yours; it doesn’t matter what nature or politics do to change it. We believe the land is all life. So it comes to us that we are part of the land and the land is part of us. It cannot be one or the other. We cannot be separated by anything or anybody._

The following comments are from a non-Aboriginal person, who worked as a teacher in an Aboriginal community, where ties to the land were strong. This person finds the fact that so many of today’s children are disconnected from their natural surroundings to be highly disturbing, and she worries about the future of a country, where so little is known about ecology:

_Sixty odd years ago, my grandfather used to take me out from when I was a toddler out to the garden, so I always loved the land. But then I was fortunate, in the Northern Territory, I worked with remote community Aboriginal people. And I learned about a whole new dimension of land, from them. And it used to..."_
worry me, when I came back to mainstream education that a lot of the kids weren’t aware of the wonderful world that was out there based around the tree (Female 3, regional tree-planting group, small group interview, Interview No. 22).

She explained that through her involvement with the local Aboriginal community, she is able to foster ecological literacy and identity among the volunteers in her group:

_We hope this year Sarah is going to take them into the rainforest and do a little walk with them and tell them how she used to live there with her grandfather—she is actually an Aboriginal lady. And I often stand in that rainforest and I think, fancy having to get all your food and all your clothes and your shelter from this lot. And no shopping centre to go to. And it really brings you up short. And her mother would have done that, her grandparents would have actually been in that position. So I’m hoping she will do that._

(Female 3, regional tree-planting group, small group interview, Interview No. 22).

Some respondents regard imagination as important in the development of ecological literacy. Asking people to imagine how the Aboriginal people used to live in the rainforest can foster an appreciation and understanding of the land and the people who once lived there.

### 7.2.1 Summary: ecological literacy and ecological identity

Many respondents revealed that they were volunteers because they identified strongly with areas where the volunteering took place. This love of nature also triggered an interest in learning and developing an ‘ecological literacy’, and helped to keep the volunteers motivated. In addition, ecological literacy was recognised as being very useful for environmental problem solving. People who talked about their volunteering work in terms of their ecological identity tended to hold particular values, and have a deep emotional attachment to the land. For some, this developed into a land ethic, with an intense, religious quality, maintained by a vision of what the future landscape would be like.
7.3 Sense of place

Catchment volunteering provides many opportunities for people to connect with or rediscover particular places of interest to them. Often the respondents were people who had lived in the same area for several years, and had become emotionally attached to their local area. The biophysical and social settings (the places) and the activities undertaken in them, constituted the experience. Some participants expressed a deep and personal connection to the places where they volunteered. One respondent explained why she became a waterwatcher:

*It [volunteering] makes me go to the river. It’s lovely to get back down there...I spent four hours wandering up and down the creek, but I had a lovely time...*(Female 1, rural Waterwatch, group interview, Interview No.13).

Over half of the respondents talked about their attachment to their local area, as being a prime motivator. Often this attachment grew over several years, as this respondent explained:

*Well first I think having used this creek system as a child, as a recreation area or facility then immediately followed with ...many years involving bush walking* (Male 5, urban ICM group interview, Interview No. 1).

A couple of people became volunteers because they wanted to get to know certain places better. Other people enjoyed the whole experience of undertaking activities at certain places with family and friends. Such positive shared experiences helped to build a sense of community. The following quotation captures some of the ways that participants experienced particular places:

*This is a lovely little community you know, it’s a great sort of place to do this sort of thing [catchment volunteering], lots of families and all that sort of stuff and people who are interested because it is their place that they want to be at* (Female 2, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).
Thus a sense of community was enhanced through place-based, collective activities. Natural, social and cultural features of a site that are maintained by everyday experiences, memories and emotions, contribute to a ‘sense of place’. This phenomenon distinguishes one location from another, allowing both foreigners and locals to recognise the unique qualities of each. According to Anna Carr (2002, p28):

> It is not something which is acquired when you move into a new area or suburb, it has to be cultivated. Like culture, sense of place is changing and adaptive, not primordial and fixed. And just as sense of place is not temporarily confined, so it is not geographically limited to any specific rural or urban landscape. It has to be built in the minds of the beholders and the dwellers in a particular place, and it has to be built over time.

Another person explained that catchment volunteering gave her the opportunity to meet ‘like-minded’ people. She joined the local Coastcare group, as she felt it would allow her to connect with people who held similar values to those she had herself. Moreover, she felt that the values of the whole community were more in tune with hers, than those of the Gold Coast community which she had left behind.

> Okay, the biggest thing for me when I came here was meeting people. But it feels good to give something that nobody else is prepared to give and it just makes you feel good. Just turning up and yeah, you do meet like-minded people who have got good intentions and you get a bit sick of old, I’ve just moved from the Gold Coast and everyone’s pretty ugly, you know. They’re all for money... it’s not a very nice place, you know. The biggest thing was to meet people and I don’t know, it’s like a personal growth. (Female 3, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

The respondent above contrasted her new rural community with the more superficial transient community of the Gold Coast. Bell(1999) contends that authenticity contributes to a ‘sense of place’. Cheng, Kruger & Daniels (2003, p90) contend that places shape a person’s identity, define how people behave and hold to the maxim, ‘to be somewhere is to be someone’.

One person thought that his group’s community could be used effectively as a place for local people to get together to discuss issues of common concern. He explained:
This centre [building] here I think is crucial.....Having a one-stop position that they [local residents] can come to, and information is presented at their level and I stress at their level, by that you are trying to develop an ambience of where they feel that, hey there is something here that they can learn, something here that they can contribute and I think the ambience of the place, everybody has got something to contribute, some form or other and is welcome and of course they are wanted and I see those going hand in hand (Male 2, urban ICM group interview, Interview No. 1).

One of the things he stressed was having a place that was familiar for local residents, and creating an atmosphere in that place that was non-threatening, so that all volunteers and community members could participate in discussions with confidence. By using the centre, the respondent was hoping to facilitate community networking that would contribute to localised social capital, social learning, and a ‘sense of place’.

As Carr (2002) notes, a ‘sense of place’ takes time to build. This study revealed that for those whose families had lived in the same area for several generations, connections to the land were very strong. Some described what the area was like when they were children or in their parents’ or grandparents’ day. They kept these images in mind when talking about land management. Even vague notions of what the landscape used to be like can drive the direction of a group:

We try and restore it to something like it was before. It can’t be put back the way it was before white settlement, but something like it was and take out some of the feral weeds that are doing damage all over the place and that’s probably why we are very, why I am very keen on staying in that sort of volunteer work (Female, urban Bushcare group, personal interview, Interview No.5).

Other respondents were more vague about the past and their vision of the landscape that they wish to return to, may be different to the reality of the landscape of time that they had in mind, and would most likely be different to that of the Aboriginal people
who occupied the land before then. Seddon (1997) when discussing ‘sense of place’
asked ‘whose place?’ and ‘whose memories?’ Yet, while their memories may not be
authentic, it is the visions or stories of what people perceive the land was like in some
unspecified past, that help to motivate the volunteers. Mental images and memory,
together with certain values and knowledge, have the potential to mobilise individuals
within the community to become involved in catchment care. Stories about the
landscape, repeated over time and told among friends and fellow volunteers, helped to
motivate some of the respondents in this study. Even though the following respondent
had limited volunteering experience, and little ecological knowledge of the rainforest
where he volunteered, he appreciated the authenticity and richness of his experiences,
by sharing stories with local people who knew the area well:

*We talked to a couple of Aboriginal guys that they were telling us stories and
that about what the land used to be like* (Male 2, international volunteers,
group interview. Interview No.16).

Creating interest in places by sharing stories of what they used to be like can help
keep volunteers motivated and interested in what they are doing. It adds another rich
dimension to their experiences. In addition, history associated with particular
locations brings certain emotions that influence our level of attachment to that place
(Carr, 2002, Schama, 1995). For people who have always lived in the same place,
history includes both lived experiences, and experiences held in memories and books,
translated and interpreted over time. According to Schama (1995, p14):

….our entire landscape tradition is the product of shared culture, it is by the same token a
tradition built from a rich deposit of myths, memories and obsessions.

Seamon (1996) reflects about ‘sense of place’ developed in Relph’s well-known book,
*Place and Placelessness*, published in 1976. In it, Relph develops the idea that the
more strongly an environment generates a sense of belonging, the more strongly does
that environment become a place. Relph argues that a ‘sense of place’ is basic to
human existence. For Relph, the essential quality of place is its power to anchor
human intentions, experience and behaviour in particular locations. Relph explains
that particular places (settings) focus our experiences and intentions, becoming
profound centres of human experiences, filled with meaning and emotions (Seamon, 1996; Carr, 2002).

Emotional attachments to a site can move people to a new level of ecological consciousness. For example, one respondent observed that over time, she saw a gradual decline in rainforest habitat around the area where she grew up. Although she moved away from that area, her childhood experiences triggered her concern for other riparian areas. She recounts:

_I realised that where I was born was once one of the most beautiful areas for rainforests along the coast of New South Wales, and it was all gone by the time I got there. By the time I was born, there was very little of it left. But that’s where I started to get an appreciation of bush, was from being there, you know, roaming through what bush was left there_ (Female, urban Bushcare group, personal interview. Interview No.5).

When she moved to Brisbane, she would go down to the local creek to paint the native flora and fauna.

_I used to go down there [the creek] to look for inspiration for drawings and paintings…_ (Female, urban Bushcare group, personal interview. Interview No.5).

She became increasingly disappointed with the condition of her local creek, in particular, the polluted water, and weed infestations. The strong feelings that she felt for her local waterways motivated her to form her own urban Bushcare group. Since then, ten years have passed, and she and the other members of her group are proud of their achievements. She, her husband and the other volunteers have formed strong friendships, and this is another factor in maintaining the momentum of the group. In a separate interview, her husband commented:

_Oh, it [volunteering] has given me a lot of pleasure, a lot of happiness and satisfaction - both from the work and from the friendships; the work and the_
results of the work, and the friendships I’ve made (Male, urban Bushcare group, personal interview, Interview No.6).

In the case of the respondents above, their lives have been transformed through the development of their group, and the things that they and the group have been able to achieve.

Some respondents felt that they should be looking beyond their local neighbourhoods, and focus more at a bioregional level of catchment management, as each part of a catchment is interconnected. One respondent explained what he thought catchment volunteering should entail:

*Catchment volunteering …may be a new movement towards people who develop a sense of place through their bioregion which always encompasses the catchment. So there’s a strong sense of identity, I suppose, with people living on the river* (Male, urban Landcare, personal interview. Interview No.3).

The central idea of bioregionalism is that each region would be generally self-sufficient, and foster a ‘sense of belonging,’ and ‘sense of place’ (Milbrath, 1989). Another person believed that catchment volunteering in their area needed to take on more of a bioregional approach, by combining with other stewardship groups in the area, to tackle issues of concern to the whole catchment. Yet not all groups shared his group’s vision:

*We have got a vision, but I have got this feeling, and I might be wrong on this, that some of the other catchment groups are too totally focussed on one site and they have got to see things more on a catchment perspective as well* (Male 2, urban ICM group interview, Interview No. 1).

Each group would have slightly different values, expectations and outcomes. Working together at a catchment level would entail certain adjustments to ensure each group retains its own identity, while at the same time striving for catchment-wide outcomes. Perhaps members of smaller groups fear a loss of identity and potential conflicts that might arise through combining their efforts with other groups. Cheng, Kruger &
Daniels, (2003) state that clashes of values, expectations and behaviour among different community members in a particular biophysical setting are not uncommon, leading to conflict in natural resource management and decision-making. Yet to create a particular landscape, individuals need to work together towards a collective vision of how it might be (Costanza, 2000). In more traditional societies where the relationship of people to the land is strong, there is often great importance placed on myths and stories of the land, social obligations, kinship, and ancestral ties (Young 1991). These are attributes of both sustainable communities (Milbrath, 1989) and communities rich in social capital (Kilpatrick, Bell & Falk, 1998).

7.3.1 Summary: a sense of place

A ‘sense of place’ develops from collective and individual experiences at a particular location (Carr, 2002). Results suggest that positive experiences and emotional attachments to familiar places can motivate people to care for them, and learn more about them. This can also lead people to a heightened level of ecological consciousness, and a deep level of personal fulfilment. ‘A sense of place’ takes time to develop, and can be enhanced through shared stories, memories and experiences. A ‘sense of place’ can help build a sense of belonging, and a sense of community, through the collective efforts of local residents, working together to achieve positive outcomes. Some respondents felt that they could consciously build a sense of community by having a community centre, a place where people could meet regularly to discuss issues of collective interest. Thus, a sense of place can help to build localised social capital and facilitate social learning.

Some respondents commented that catchment volunteering allowed them to meet ‘like-minded’ people, and people who share similar convictions and values. This study revealed that many of the volunteers gained new friendships and deep sense of satisfaction and joy from their efforts. Thus, personal identity and social identity can be built through activities centred on a particular place. Some respondents suggested that community identity may be enhanced through the adoption of bioregional principles, yet there was a feeling among some participants that not all catchment volunteers wanted to identify with a larger geographical area. One of the challenges of catchment volunteer groups may be to develop a collective vision of the landscape,
one that transcends political and social boundaries, and one that moves beyond personal and group identity to a community or even bioregional level. This does not necessarily mean giving up one’s personal or group identity, but rather aligning each, so that they coincide with a bioregional identity, such that all individuals in the bioregion share a collective long-term vision of the landscape, and work together to achieve it (Costanza, 2000; O’Sullivan, 1999).

7.4 Identity as a motivator for catchment volunteering

Data obtained in this study suggest that sustainable volunteering is enhanced by acquiring a personal identity formed from values, beliefs and interests, and developed over time and through traditions. Creating a ‘sense of place’ and fostering ecological identity can be one way of building on the existing positive impacts of catchment care groups, and encouraging long-term volunteering in local areas. Having a central meeting place or community centre can help bring people together who share a common land ethic. This may have the added benefit of retaining volunteers and sustaining the long-term viability of the group. Focusing activities on specific places of interest and creating opportunities for learning about the local environment and its ecology are important in generating a sense of place among local people. Group members can work together to address environmental issues through sharing local knowledge and experiences. A shared vision is achieved by balancing group and individual goals. In turn, this vision can be used to feed into broader natural resource management policies and issues, and help solve environmental problems.

An effective way of utilising the knowledge gained in catchment groups may be through the development of an online database accessible to all members of a community (Bosch, Allen, Williams, & Ensor, 1996). This is discussed further in Chapter Eight under the categories of learning and networking. The study shows that the social identity formed by members of a particular group/program contributes to a sense of belonging, responsibility, values and emotions. Many of the participants expressed their social identity in terms of caring for others in their group, camaraderie, friendships, and even counselling. The study suggests that catchment
groups attract individuals who share common convictions and values in relation to the land, yet may otherwise be very diverse.

Respondents most often talked about their reasons for volunteering as being based on their ecological, social or personal identities, rather than on more esoteric notions of service delivery. The study shows that many care passionately about their environment, and that catchment groups can play their part in developing this ecological consciousness. An important aspect of identity is the learning and networking that takes place, as identities are formed and strengthened. The two separate conceptions of learning and networking are the topic of Chapter Eight. Learning was seen by many respondents as learning about causes and effects of human impacts on natural systems; while others saw learning as more of a public education process, where they were learning how to create public understanding of root causes of environmental problems. Networking was experienced as both sharing and building relationships, and this was often done in conjunction with learning.
Chapter Eight

Learn and pass it on - learning & networking for community change

In volunteering and networking for volunteering organisations, I learned skills and stuff that I can apply to my work because I work in the field of environmental restoration as well, so both sides help each other. I learn something and take it to my other job as well

(Male 4, urban ICM group interview, Interview No. 1).

8.0 Introduction

Catchment volunteering was seen by a majority of respondents in this study as a learning experience - hence the emergence of the conception of learning from the results of this study. This is not surprising, as Milbrath observes:

Learning is a central concern in our civilization. Every societal institution – family, school, church, business firm, government, voluntary organisation – devotes considerable time and effort toward learning (Milbrath, 1989, p88).

The chapter begins with a discussion of the conception of learning. Learning occurred through catchment volunteering in a variety of ways, and respondents saw learning occurring at the level of individuals, groups and community. The type of learning occurring at each level is described by different respondents, and discussed under separate sub-headings. The first describes how respondents individually learn about the causes and effects of human impacts on natural systems. The second relates to the ways in which learning occurs among volunteers and other stewardship groups. The third describes the ways that learning through volunteering extends to public learning, and the accumulation of community knowledge. Community knowledge is
increasingly being seen as a valuable asset in natural resource management (Carr, 2002; Allen & Bosch, 1996; Allen et al, 1998).

Respondents in this study described the ways of sharing information, skills and other knowledge as *networking*, the fourth conception revealed by the study. This conception is closely aligned to the conception of learning although respondents tended to see them as distinct categories. Because they tend to go hand in hand, of these two conceptions will be discussed together in this chapter.

This discussion is followed by a section focusing on learning and community change, and the importance of networking to run successful community education programs. The relationship between networking and learning is explored further under topics within this chapter of *networking and learning circles, social learning and social capital for community change, and finally synergy of learning and networking.*

### 8.1 Personal learning and networking experiences

Some respondents described learning in terms of the knowledge and understanding that they had personally gained from their volunteering experiences. Often personal learning happened incidentally, as a result of direct observation, experiences and activities. Sometimes personal learning occurred through unplanned events while at other times, it was part of a formal program. Most of the groups involved in this study provided some type of skills-building program for volunteers.

Some respondents spoke of becoming aware of environmental issues through direct observation and experiences.

*Especially like in high school ...... if you’re helping to collect money for a “Save the Rainforest Federation”, it’s a lot different than coming to the rainforest and actually working on a track to help. It’s just not the same, you don’t understand exactly what you’re working for, when you’re just saying, “Put some money in here* (Female 3, international volunteers, group interview, Interview No.16).”
One person, a water quality monitor on her own property, revealed her concerns about fish life in the local creek:

I have been concerned during the last few days actually, because I’ve been taking my brother out and my brother is very interested in fish. And he said, I can’t see any little fish, I haven’t seen any little fish in this river, but I used to see little fish in that river and I looked a couple of days ago and I thought, wow, you know there’s not any little fish in this river. I just can’t see them there (Female 1, rural Waterwatch, small group interview, Interview No.23).

In the same conversation, another respondent explained that volunteering provided an opportunity for him to make connections about causes and effects of human impacts on natural systems:

I’ve learned a lot about water quality. I’ve learned about the effects of say phosphates and nitrates what they actually do, in the water - what their function is and what effects they have. I’ve learned a bit about the geology and the geography of the area, through doing that (Male 1, rural Waterwatch, small group interview, Interview No.23).

Knowing about causes and effects of environmental issues and generally learning about natural systems are driving forces behind the following respondent’s voluntary activities:

I get better understanding of the river system in doing it. I get a better understanding of the whole environment by doing water quality monitoring and it stimulates me (Male, rural Waterwatch group, personal interview, Interview No. 26).

According to Jensen (2000), awareness of the causes and effects of an environmental problem is the first stage towards becoming consciously and actively engaged in the issue. Some respondents revealed how they had gained a deeper level of understanding of environmental problems, their causes and impacts, through volunteering.
How the actions on the land affect the quality and quantity of water flowing down the streams, which then affects the animals and plants associated with that stream (Female 2, regional Landcare, small group interview, Interview No.7).

Another respondent talked about the severe environmental problems on her land because of human impacts further upstream:

Everything has been robbed further up, because all the lagoons have been filled, because all the breaks in the river have been altered upstream, we get the full impact of the river down in the mouth. And we’re paying a big price for it (Female 1, rural Waterwatch, small group interview, Interview No.18).

Because she did not fully understand the implications of the human impacts upstream, or who to contact to help her resolve the issue, she felt powerless to do anything about her situation downstream. In this instance, knowledge, understanding and networking is a form of empowerment (discussed further in Chapter Nine). On the other hand, those with large personal networks found that when important issues came up, they knew who in their local community would be most able to help their group to resolve the problem. One person commented:

I talk to the people that I’m involved with, immediately, my network, and I have a huge network of Water people. So if I need to know something, or I need some help on something, I’ve got the right person always there to call...It’s not difficult here, I would like to do the same thing in another area, but I haven’t got a hope, because I don’t know those networks (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).

The same person described how she first became involved with her catchment group. She recalled:
The thing that first got me involved was the dam, ...., all the farmers in the district got together and formed a committee called “save the upper Mary”.... they were all people who lived in the valley and had farmed in the valley for most of their lives and their parents, and their grandparents and they were all related to Uncle Bob on the corner (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).

This person’s recollections show how effective networking takes time, and is in part, a learning experience. It also demonstrates that the conception of networking is linked to the conception of identity (Chapter Seven) because of the strong connotations of sense of place and sense of community described by the participant - both of which are aspects of identity (Carr, 2002).

8.1.1 Summary: personal learning and networking experiences
Results suggest that catchment volunteering provides lots of opportunities for people to learn about local environmental issues through direct observation, on-ground activities or formal programs. Some respondents spoke of the deeper levels of understanding that they had gained through their voluntary activities. Making connections about the underlying causes of problems helped to keep volunteers motivated and focused on current issues, as they worked towards solutions. Being able to learn about issues and then share this knowledge and understanding had both personal and group benefits. Sharing knowledge was easier for volunteers who had large personal networks within and beyond their group. They knew who to contact about certain issues or problems. For those who did not have extensive personal networks, arriving at satisfactory solutions was much harder.

8.2 Learning and networking experiences
Most groups involved in this study held regular meetings for members to discuss important issues and problems associated with catchment management. Informal learning about how to tackle these problems or issues was often done at a group’s catchment community centre or nursery, or at the creek. As people worked together potting plants, sorting seeds, or monitoring water quality, they would talk through
issues. Some groups had regular ‘drop in’ days at their centre (eg on a Friday morning) when members would bring in cakes and biscuits to share with tea and coffee, and birthday celebrations were a regular feature. In these informal ways, group learning occurred through sharing information, experiences, camaraderie and social support.

In one interview, a Landcare coordinator explained that she has learned a lot about how people work together in groups and, because of what she has learnt, the group has been able to achieve some of the program goals:

*Working within group dynamics and just observing, maybe small amounts of power play – I probably work around that to achieve the outcomes that I want. And trying to be subtle – diplomatic - which is something I’m really learning. It’s probably nothing I was skilled at previously but I think I’m starting to master the art of diplomacy* (Landcare coordinator, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Learning how to be diplomatic helped the coordinator to steer her group towards collective goals, that perhaps could not have been achieved in other ways. Being diplomatic allows people to share their knowledge and skills in a non-threatening atmosphere. In another interview, a respondent commented on the importance of having a group atmosphere conducive to the development of creativity and innovation, both of which are needed to solve complex environmental problems:

*It’s a co-operative thing and people share things and support each other and there’s just so much you can do when you do that…. Such wonderful ideas spark from one person to another and I think that it’s really creative and I’m not a creative person, but I think, some of the things that go on here are just so creative* (Female 1, regional Landcare group, small group interview, Interview No. 7).

Another person in a different group explained that the friendships he has made with different people in his group has allowed him to see other perspectives, and he has become more tolerant and willing to listen to other points of view as a result:
...intangibles are the relationships that I’ve built over the last couple of years with fairly good close relationships with two or three or four people.... and all sorts of people that I wouldn’t normally associate with... I enjoy getting like an insight into... viewpoints of those sorts of people that are very different to yours (Male, urban Landcare, personal interview. Interview No.3).

Another person expressed the benefits of building strong relationships within his group:

What you can do individually, you can do more collectively. In other words as an individual you can join a group like we have, and collectively you get things done (Male 6, urban ICM group interview, Interview No. 1).

The above comment confirms the view of Donald (1997) who argues that volunteering can help people achieve goals that they might not otherwise be able to achieve. The following person explained why he thought his group was successful in reaching their goals:

I think that three of us working together shared...coming from a different perspective, shared our skills, and I think that has been part of the strength I think...(Male 1, urban ICM group interview, Interview No. 1).

Thus, learning by sharing skills within a group is an important element of success. Over the years, one group had inadvertently created an informal ‘learning circle’, where people got together regularly to discuss and learn about relevant issues to solve environmental problems. A person in the group gave an example of how one person’s skills and knowledge are shared among the group, to develop the skills of all members:

Dave is our sort of weed person. He’s absolutely wonderful. He’s got a property at Milaa Milaa, which he is replanting steadily and the Cassowaries are coming into it and he’s taking photographs of them.. So he brings his photographs in to the morning [meeting] because people like me and other people he knows, will be there .... and we’ve been out to his place and he’s
patiently told us the name of the trees and the history and all that. So you learn heaps from him there and then......(Female 1, regional tree-planting group, small group interview. Interview No. 22).

Another respondent recounted her first experiences with the same group, and how and why she became a member:

We changed from one farm to another farm near Atherton...I wanted trees for the cattle...I'd been talking to Helen, ....I said “where do I learn” and she replied “TREAT - Come out to TREAT, ....And that was the start, and I haven’t stopped coming because it is a really good atmosphere...and if you want to learn, which I did, there is everything there for you to learn. And then, if you just keep coming back, you get to know the people and so I just made it a thing that I went to TREAT on a Friday Morning. ...(Female 2, regional tree-planting group, small group interview. Interview No. 22).

According to Foster-Fishman et al (2001), the type of social bonding between diverse individuals that has been described in the quotations above is critical to successful group capacity building, where different members bring a variety of skills and resources with them, and different points of view are considered respectfully.

McCool & Guthrie (2001), explain that a positive group atmosphere promotes socially acceptable approaches to learning including ‘authentic discourse’ - that is, the opportunity for all members of the group to speak in ways that are easily understood within the group. This study reveals however, that not all groups had welcoming atmospheres. In some situations, new members of stewardship groups were not able to speak freely at meetings:

I complained that the meetings were aggressive and Eva and I were new and so they put the blame back on to us and tried to isolate us ....(Female 1, rural Waterwatch, small group interview, Interview No.18).

The comment reflects some of the negative impacts that bonding ties within cohesive groups can have. On another occasion, a respondent tried to join a local community
group in a small rural town, and found the bonding ties among members were so strong that she felt excluded by the other members:

*I went to join Lionesses once and I was spoken to and looked upon like I was second class, and I was out of there...they are so exclusive...*(Female 1, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).

With respect to catchment volunteers, the same thing occasionally occurs, as this person commented:

*Another thing that happened recently, was when they organised an event to recognise volunteers, they were not allowed to bring spouses or family, at that point I decided that I didn’t want to be involved anymore* (Female 1, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

These comments reinforce Falk’s (2000) observations that ‘bonding ties’ which unify groups will only contribute positively to social cohesion and capacity building if balanced by ‘bridging ties’, linking groups and communities externally to the broader society. One respondent in this study spoke of the bridging ties provided by the Aboriginal members of her group:

*A real strength in TREAT is the way that they [the Aboriginal members] don’t just look at a tree. When the trees are planted they’re talking about the birds that will come to it or the insects that come to it and that’s one of the things that I love about TREAT, you don’t see trees in isolation. They are all part of a much bigger picture. That’s one of the things that my Aboriginal friends here go crook about they say “Oh you only look at the river or you only look at the bank of the river. You should be looking at the total...picture, so that you don’t stuff things up”* (Female 3, regional tree-planting group, small group interview. Interview No. 22).

This informal transfer of traditional knowledge of the land and its interconnections with biological systems not only contributes to collective learning within the group,
but also enhances the ecological identity of volunteers. It also allows the non-Aboriginal volunteers to gain insight into the perspectives of the Aboriginal people in their community. Other groups had more formal learning and networking arrangements, inviting guests from outside the organisation to speak on relevant topics, or to run workshops. Both ‘word of mouth’ and having an up-to-date email list are essential for most groups, as this respondent explained:

*I’ve sort of got a network of people, so I just sort of e-mail and put out the word of mouth, you know, like, this is happening and get a fairly consistent number of people turning up…* (Male, member regional Landcare group, and Greening Australia, personal interview. Interview No.21).

Both bonding ties and bridging ties contribute to the building of ‘social capital’ - which can be defined as social networks, norms and levels of trust within and between social groups (Putnam, 1993, 2000). Social capital may be seen as a public good which enables a greater output to be produced from the stock of physical and human capital in society. This stock accumulates through use and over time, reinforcing networks, norms and trust (Putnam, 1993; 2000). The following comment explains how social capital within a rural community can help in incidental learning through sharing of knowledge and experiences:

*A lot of the things that we are involved in apart from Landcare are land-related and being graziers it sort of, all tied up in that whole circle. So it’s normal to meet up with a chain of people and talk about the weather and the soil and the grass and all those type of things* (Female 1, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Social capital can slowly be diminished, particularly if networks and trust are eroded. One respondent reflected on the loss of social capital that accompanied the loss of their paid coordinator:

*The funding arrangement for paying for our coordinator is finished… all of those relationships that she has developed, they are not going to disappear, but they will fade…* (Male 2, urban ICM group interview, Interview No. 1).
It would be a mistake however, to assume that collective social capital is merely the sum total of the social capital accumulated by individuals (Portes & Landolt, 1996). Social capital is something that belongs to the group, not to any one individual and is accumulated through interactions between individuals, between individuals and groups and between groups of groups (Kilpatrick, Bell & Falk, 1998). To be meaningful, social capital should be freely and equally available to all members of the group through the social networks collectively accumulated by the group (Portes & Landolt, 1996).

8.2.1 Summary: learning and networking experiences
Learning and networking occurred in both formal and informal ways, largely through the sharing of information, skills, experiences and knowledge among volunteers. Groups with a friendly, trusting atmosphere where people felt able to talk freely often arrived at creative solutions to environmental problems. They achieved outcomes that would be difficult to accomplish as an individual working in isolation. In situations where volunteers could not speak freely, unresolved tension and conflict was evident. Some respondents described the conception of networking in terms of bonding ties within their group and bridging ties between their group and the wider community, and the benefits that these social ties provided. These ties are related to the concept of social capital, discussed further in the next section of the chapter.

8.3 Reaching the community through learning and networking
Many respondents explained that in their experiences, creating public understanding of root causes of environmental issues was an important step towards solving environmental problems. Some groups had worked out ways to communicate important issues and underlying causes of certain problems to local communities, for example, by developing demonstration sites in the centre of small towns and suburbs, and these were seen as being highly successful:
Our Landcare sites are excellent as a demonstration sites. Lots, would you say thirty thousand people say maybe see it annually. That’s just excellent, wonderful (Male 4, regional Landcare, group interview. Interview No.11).

The Landcare group discussed in the comment above was well established, being at least five years old, and was established in an area where community awareness was strong, whereas the Coastcare group discussed in the comment below was less than a year old. Despite being such a new group, the enthusiasm of its members helped create community awareness about, and involvement in, their projects:

And I guess with Coastcare, ....its profile has been very much raised this year with .... community tree-planting days, ...... I think a lot’s been achieved and it’s not just getting the trees in the ground, it’s also awareness and getting people on board, just giving them the opportunity to come and hey join in and starting some workshops up... and letting people know of the options... The seed has been planted and it can only get better (Female 3, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Part of the process was learning how to network effectively, thus demonstrating the complementary nature of the conceptions of learning and networking. In this study, community learning about catchment issues had occurred to a greater or lesser degree in areas where catchment groups were active and successful in building relationships with other social groups. This was expressed by one respondent, who had established her Landcare group several years ago:

I think that the community is becoming more informed and is therefore much more able to be in a position to consult with people about water management issues (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).

Yet some respondents spoke of the difficulty in reaching out to the local community, particularly in rural and regional areas.
There were only about five or six of us, flat out getting to meetings, but you know, we wished that there were more people would come, you know, because one fellow, he put a weir across the creek - bottled the creek up (Male 1, regional Landcare, group interview, Interview No.11).

This lack of concern by others in the community meant that environmental decisions were made by individual farmers in regard to their own land, without considering the impacts of their activities on their neighbours, or on the environment extending beyond their property.

In another situation, a respondent who was a member of a rural Waterwatch group said that although she had been trying to raise awareness about one particular environmental issue, there was little community support for her campaign:

I wanted to form a Progress Association but because really, a lot of people aren’t onside in our local area, it’s a pretty lonely trek (Female 1, rural Waterwatch, small group interview, Interview No.18).

Another respondent noticed that although she belonged to a friendly, inclusive and welcoming environmental group, all of the members were from out of town – there was not one long-term resident among the group:

I looked round at them last Thursday and I thought to myself “Gee we all get on well together”, and I looked at it and the sad thing is, that we’re all blow-ins. We are all from other places. Not one long-term resident was there... There were two new members and I was out at dinner with them the other night actually and they said, that our group was the first really friendly group that they struck in town. And they started to come along for the friendship from it (Female 3, regional tree-planting group, small group interview. Interview No. 22).

Although popular among newcomers, the group had not been able to recruit local residents of the small town. Perhaps this was because the community was not interested in the type of issues that the group was concerned with, or perhaps it was
because the group did not understand how to communicate with the local residents. This seemed to be a stumbling block for one urban catchment group, as this person commented:

*Everyone of us, we all agree, and we have all talked about it many times, that we should have an education programme where we get out into the community and invite people in and really do the building, the group building exercises that are required - we say that every single month* (Male 3, urban ICM group interview, Interview No. 1).

Before groups and networks can do the group building exercises, members need to know how to mobilise people, so that outsiders will want to become involved. In the same interview, respondents remarked that they still do not have that understanding, and therefore, their group cannot mobilise people for effective participation. This is reflected in the following comment:

*You have to get the people to the point where they know how to respond. You have got to get them into groups that can respond. There is your problem.*

(Male 2, urban ICM group – group interview, Interview No. 1)

Another respondent in the same group believed lack of community support for his catchment group was due to a general lack of knowledge in the community about local environmental issues:

*I’ve really worked in this area and my feeling is that we can’t do what we want to do with our work because of lack of knowledge in the community. And that’s still not good* (Male 5, urban ICM group – group interview, Interview No. 1).

In another interview, the respondent doubted the benefits of raising community awareness if it were done in isolation, without explaining the root causes of the pertinent environmental problems:
No one will listen to us until they understand the problems associated with water. ... Until that basic premise is laid out before them, with the pros and cons, put down in a balanced and professional way, so that the people can understand it and read it and make a judgement on it, raising awareness is no use….(Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

According to the respondent above, community members have to be convinced that their actions will have successful outcomes, before they are willing to act. Part of the learning process is being able to gauge the level of community awareness and acceptance of the group goals and visions, so that public education programs can be effective. As Anna Carr notes:

Members of Water Watchers felt that there was no point in adopting broad environmental management strategies based on elaborate scientific evidence and regional planning jargon if the community group was not in a position to appreciate this type of approach (Carr, 2002, p184)

Catchment groups need to work out exactly where their local communities are ‘at’, to be successful in creating awareness of catchment issues. Once again, networking can be beneficial. For example, one member of a regional Landcare group explained that through her personal networks she had learnt a lot about her community and the range of different community perspectives:

I am vice-president of the local Integrated Catchment Management group...and then, within that, I sit as secretary on the Natural Resource Management Board, which is made up of, among other things, all representatives from all the different catchments within the region. So there’s a bit of a hierarchical system, so I can see how government works and what it requires of us and can inform government, because we are the ones that dig the holes in the ground. So I am happy to cover that spectrum. I belong to a whole lot of other things like the farm forestry group, and various community consultative groups (Female, Regional Landcare small group interview, Interview No. 24).
Like the respondent quoted above, many volunteers in this study were active in developing ‘bridging ties’ outside of their organisations, in order to learn more about their community and relevant environmental issues. The following comment explains how some volunteers achieve this:

When we’re trying to find out things it’s really valuable to find people who have that information and just by talking to people ... you find a person from this group will know something and a person from another area will know something else....It’s just valuable talking around – it becomes a web, more or less (Female urban Landcare group, personal interview, Interview No. 4).

Cox (1995) stresses that by being active in a number of different public arenas, the whole community benefits. When members of a catchment group seek information from other civic groups, the members of other groups can learn about catchment issues. This is reinforced by the following observation:

In volunteering and networking for volunteering organisations, I learned skills and stuff that I can apply to my work because I work in the field of environmental restoration as well, so both sides help each other. I learn something and take it to my other job as well (Male 4, urban ICM group interview, Interview No. 1).

The importance of passing information on to other members of the community is recognised by some of the respondents.

Someone who can learn it and pass it on. That’s an angle that I’ve always tried to focus on this year, wherever I can. .... I try and have a little bit of a spiel about it ... because it is a means of empowerment of people ( Female 2, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Being able to pass on new knowledge is critical to managing natural resources (Berkes & Folke, 2002; Bosch et al, 1996). It is an ‘action competence’ approach.
Action competence is the result of developing the skills to solve problems and facilitate action (Fien & Skoien, 2002, p272).

Networking and learning which is empowering can trigger ‘action competence’ within individuals, and contribute to building social capital within communities. In one interview, the respondent explained the importance of building relationships with other organisations to inform the community, and to empower individuals:

*Bushcare is only part of the thing. Other groups out there you’ve got to get to too, particularly the schools, the rotaries, the history associations, the pensioner groups. These people can do good, they’ve got to be resourced*

(Male, urban Landcare, personal interview. Interview No. 2).

Empowering individuals to ‘do good’ is an example of how action competence can be developed within individuals and within communities. From this perspective, the creation of action competence within catchment volunteers to develop confident individuals capable of making wise decisions and performing worthwhile tasks to achieve organisational goals is critically important. The observations made by respondents in this study agree with the findings of Fien & Skoien (2002), who note the existence of action competence among catchment volunteers in their study of two catchment groups in south-east Queensland.

Learning how to build relationships with other organisations, and to have a united voice on particular issues, is seen as critical to influencing government agencies, according to this respondent:

*If you go as one organisation representing fishing in this case, it is very difficult to convince them (the government agencies) to do anything at all unless you can get other organisations to back you up with that particular issue* (Male 1, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).

Another respondent explained how her group works with schools:
We take our display trailer loaded up with pots and little seedlings and things [to the schools] and get the school children to start to pot stuff up for us and put their name on it and we promise them we’ll plant in the forest and so it’ll become a big tree one day. That’s actually one of these social links that we make (Female, member of regional Landcare group, small group interview, Interview No. 24).

Networking also included fostering relationships with other social groups within a local community:

If Landcare comes up with a project, they might be looking for volunteers to plant trees. So, we call on Rotary, we call on Lions or somebody else (Male 3, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).

Learning how to consult with others about important issues is one of many strategies that can be adopted to facilitate change. The type of learning which leads to shifts in behaviour (actions), is described in educational theory as ‘action-competence’ (Jensen & Schnack, 1997; Jensen, 200; Fien & Skoien, 2002), and can be empowering. ‘Transformative learning’ also known as ‘popular education’, is part of the action competence approach:

…..transformative learning [is] a process of learning, whether informal or non-formal, which begins with the daily lived experiences of women and men living in communities and which is linked to changing the root causes of environmental destruction or damage (Hall and Sullivan, 1995, p98)

Transformative learning can effect changes and transform power relations among men, women and children through collective learning processes. It involves participative processes that facilitate shared experiences, information and knowledge (Hall & Sullivan, 1995). This type of learning is further explored in Chapter Nine under the conception of empowerment.
8.3.1 Summary: reaching the community through learning and networking

Results suggest that some groups had successfully worked out how to create community awareness of the root causes of some important environmental issues, and that this was an important step towards solving environmental problems. Some of the strategies included having established demonstration sites, taking trailers of plants to schools and community events, having field days, tree-planting days and other activities that were well publicised and open to everyone. Even newly established groups could raise community awareness if their members were energetic and enthusiastic.

Yet, not all groups were successful in gaining community support for their work. Even though groups generally recognised the value of reaching out to the community to create awareness of environmental issues, they didn’t always know how to do this. One person thought that such efforts were futile, if not accompanied by explanations about the root causes of pertinent environmental problems. In some groups, volunteers consciously developed ‘bridging ties’ outside of their organisations to learn more about community attitudes to relevant environmental issues, and to gain a clearer picture of the issue itself. As well, respondents commented on the importance of sharing new information with other members of the community, so that the whole community can respond, and if necessary, adapt to changing circumstances. This ‘action competence’ approach can be transformative, empowering, facilitate collective learning, achieve positive environmental results, and contribute to the accumulation of social capital within communities.

8.4 The synergy of learning and networking

The conceptions of learning and networking revealed by this study complement each other. As demonstrated in the preceding discussion, networking between group members and the wider community, and among themselves, are integral to learning. Through learning and networking appropriate actions may be taken to help in problem-solving, whether the issue is an environmental one, or one pertinent to the smooth running of the organisation. Results indicate that learning to work with people at many levels is crucial for achieving group outcomes as well as for personal
satisfaction and community empowerment. These inferences agree with the findings of Carr (2002), and Fien & Skoien (2002) that stewardship groups are largely comprised of individuals who are keen to learn and share their knowledge, skills and understandings of natural resource management with others in the community. Ife (2002) maintains that the accumulated skills, knowledge and understanding of group members can help build the capacity of a whole community when members provide wisdom and service to others outside their group. Thus a local catchment group should be active in providing information, advice, and appropriate actions for relevant issues of concern to their local community, rather than keeping whatever knowledge they have accumulated to themselves. In that way, the whole community benefits, and will only need to call in ‘outside expertise’ if the local catchment group cannot provide the information, advice or actions that are needed to resolve the pertinent issue (Ife, 2002). This type of information sharing is only achieved as group members learn how to network effectively.

This study builds on the findings of other authors social learning, transformative learning, adaptive change, action competence and social capital are all closely linked (Jensen & Schnack, 1997; Berkes & Folke, 2002; Fien & Skoien, 2002; Colquhoun, 2000; Hall & Sullivan, 1995). It was evident from this study that both social capital and action competence facilitated change through learning and building upon individual and collective experiences and visions over time.

By promoting opportunities for learning and networking within communities (such as public fora) where environmental issues are discussed in open transparent ways, stewardship groups can help communities respond to changing environmental conditions. Opportunities leading to community change can also facilitate individual and collective empowerment, the topic of the next chapter. Respondents experienced this conception on a variety of levels, from personal empowerment; empowerment of catchment groups; and as power struggles. These aspects of empowerment form the basis of Chapter Nine.
Chapter Nine

Empowerment - voices through volunteering

[Volunteering] gives ‘little me’ a voice in the community that speaks to government and speaks to funding bodies

(Female 3, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

9.0 Introduction

Results presented here focus on the conception of empowering described by participants. According to Ife (2002, p53) ‘Empowerment aims to increase the power of the disadvantaged’. Empowerment is related to participation - the process of gaining influence over events and outcomes of importance that may unfold the individual, group, or community level (Fawcett, Paine-Andrews, Francisco, Schultz, Kimber, Lewis, Williams, Harris, Berkley, Fisher, & Lopez, 1995). Respondents experienced empowerment on a variety of levels, including empowerment through positive experiences and personal relationships among group members; empowerment through adequate funding and resources; and empowerment through negotiation. The chapter concludes with a discussion of how citizens may be empowered for catchment management through volunteering.

9.1 Empowerment through personal and group transformations

Many respondents suggested that being a catchment volunteer was an empowering experience. One interviewee felt that the forum provided by her group allowed her to be heard by influential people within the community:
[Volunteering] gives ‘little me’ a voice in the community that speaks to government and speaks to funding bodies (Female 3, mixed rural group, Landcare and Coastcare members. Group interview. Interview No. 14).

Another spoke of the way in which he was personally transformed by actively participating in negotiations with figures in authority:

That’s [volunteering has] changed me in the sense that I don’t feel any fear from anyone above me...The way I look at it now, I never get nervous going into a meeting with a politician or anyone...It doesn’t matter what he (the politician) thinks of me, anymore, that’s not the point... (Male, urban Landcare group. Personal interview. Interview No.2).

The process detailed by the person above was described by Forbes (1987, p131) as the empowerment that develops when individuals become ‘confident and competent’ in their dealings with other people, particularly bureaucrats and politicians.

Some respondents described how volunteering helped to develop personal skills and feelings of self-worth by providing a focus for daily activities and social interactions.

When I first started I was a pretty timid, shy type of person. I had spent about six months on the dole, and I had casual work from time to time.....As the months progressed, and as we worked together, we found ourselves being more open. I really benefited out of that and now I am a more open type of person, I can get along and speak in groups and get along with people I don’t know. I have definitely got a lot more confidence (Male 1, Central Queensland ex-Green Corps and ex- Green Reserves group interview, Interview No. 15).

Another person described why he enjoys volunteering:

I suppose it’s therapeutic, ....it’s very relaxing and plus, you know you’re doing something good....Get’s me out of bed in the morning, to do something worthwhile as I see it (Male 3, Central Queensland ex-Green Corps and ex-Green Reserves group interview, Interview No. 15)
Being out of work for long periods of time can lead to depression, and a lack of direction in one’s life (Dooley & Prause, 1995). Volunteering helped some respondents to re-gain direction, and allowed them to feel good about themselves. The following comment was made by a respondent who had become a volunteer after long periods of unemployment:

*I think it’s a good boost to confidence as well. Especially when you’re unemployed it’s, you sort of forget what you can do and I think volunteering, sort of helps me to keep my skills up and realise that I can still do things and applying for jobs all the time, can get a bit depressing* (Female 2, ex Green Corps and ex-Green Reserves group interview, Interview No. 19)

Other respondents also recognised the value of volunteering while they looked for employment, especially in terms of the skills that they were developing while doing voluntary work:

*[Volunteering offers]…the chance to keep up my skills while I’m looking for work and I think, that’s kind of a benefit when I’m applying for jobs is the fact that I’m working as such all the time* (Female 4, ex-Green Corps and ex-Green Reserves group interview, Interview No. 19).

By being sensitive to the needs and desires of the individuals who join their group, volunteer coordinators can build on the skills of their members to achieve satisfactory outcomes for both the volunteers and the organisations to which they belong. As well as benefiting the group, training was seen by many of the volunteers as being personally empowering. Another person, who had also been unemployed for some time saw volunteering as a way of coping with depression and low self-esteem:

*Giving people something to do…. It [volunteering] raises their spirits... all sorts of awful things can happen when people get depressed, you know...you seem to sit down and go into a little hole.....so it’s good to be out there and being a part of it* (Female Waterwatcher. Personal interview. Interview No. 20).
These findings agree with those of Reitsma-Street, Maczewski & Neysmith (2000), who undertook a study of volunteer experiences in multi-cultural community resource centres in Canada, where participants spoke about how volunteering helps fight depression and fears associated with living in poverty. For some individuals, catchment volunteering provided opportunities for encouraging personal relationships, and helping others who may be experiencing personal difficulties.

*We find ourselves in counselling situations. Because we are there and we can actually draw it, we can centre it on a physical task, so in that way, people who are troubled about something can work it out through potting up or doing something else* (Female, regional Landcare group. Small group interview. Interview No. 24).

Thus volunteers in catchment groups can help each other in dealing with low self esteem, depression, or other personal difficulties. Volunteers can help each other in other ways as well, for example by helping each other to develop skills that can lead to employment opportunities, or to find meaning in their lives, as this respondent explained:

*A number of people have been given something to live for through getting involved as volunteers. Some of them got jobs as a consequence. Some of them are older people whose lives are falling apart and are now suddenly given something to do and it makes them valuable. I think that’s not to be minimised* (Male, member of regional Landcare group, small group interview, Interview No. 24).

Perhaps without realising it, the people quoted above are contributing to the health and well-being of their local communities, by helping individual volunteers to overcome a range of personal problems. This important aspect of stewardship fits within the concepts of building resilience in individuals and communities that have been discussed by community-based prevention practitioners. These are professional people concerned with the psychological health and well-being of individuals. Marshall (2001) explains more clearly what ‘prevention’ is:
….prevention involves proactive processes including caring relationships, high expectations, and opportunities for meaningful participation and contribution. These are transactional processes of person-in-environment. When we are engaged in this kind of prevention, we may chose to no longer think of our work only as prevention, but also as promoting healthy individual human development within the context of community (p2).

Marshall (2001) maintains that knowing about how to develop resilience within individuals is often a combination of common sense and scientific research, involving the ordinary human capacity for transformation and change. This capacity for change is often achieved through collective efforts. For example, one respondent believed that through the skills she had acquired as the local Landcare coordinator, she was able to motivate some farmers to consider new practices.

*Getting some farmers to do all sorts of interesting things that I don’t think they would have done before. I think that’s something to be proud of, actually...*  
(Female 2, mixed rural group, Landcare and Coastcare members. Group interview. Interview No.14).  

Another respondent spoke of the collective power of the group when raising awareness of environmental issues within their community:

*I do believe that actions speak quite loudly and if we can show that we are doing a great deal of good in the areas that we are working in and we are pulling in other people from the community then maybe people would be prepared to look and listen, say well this is a force* (Male 4, urban ICM group. Group interview. Interview No. 1).

Although volunteer groups generally recognise and utilise the skills and experiences of their members, one respondent recounted how the skills that she could bring to the work place caused tensions between unpaid and paid workers:

*I found there was a certain amount of resistance with paid coordinators who were quite nervous of someone who could actually come in and run an office, because that’s my corporate background... That’s very frustrating, when you’re expected to plant trees and pot plants when you know you could be*
doing a better job in the office and can't get in there because you are too much of a threat to the paid person (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

From the comments and reflections of the respondents, it could be surmised that groups with members who valued and respected the contributions of all the volunteers, were likely to have positive outcomes for both the volunteers and natural resource management.

9.1.1 Summary: empowerment through personal & group transformation

Some volunteers spoke of participation in voluntary activities as being personally empowering, as the experiences gave them the opportunity to develop personal skills and confidence, including the ability to speak to influential people. Other respondents recognised the value of volunteering while they looked for employment. Some saw volunteering as a way of coping with depression and low self-esteem. Many volunteers commented on the training provided by the group as being personally empowering. Catchment volunteering provided opportunities for some of the participants to develop personal relationships and help others experiencing personal difficulties. Matching skills and interests of tasks can enhance volunteer experiences, and help them to feel valued. Empowering individuals by using a range of common-sense and self-help strategies helps to develop resilience in individuals, and this has positive benefits for the whole group and the wider community.

9.2 Empowerment through economic security

Even though volunteers can help each other, and as a group achieve positive results, many respondents felt that the groups needed on-going funding and access to adequate resources to remain viable. Without these, enthusiasm is hard to maintain, and active participation in decision-making can become almost impossible. For example, to attend meetings where crucial decisions are made, many catchment volunteers are required to travel long distances. Recent funding cuts now mean that most volunteers do not even have petrol expenses covered. When projects finish,
resources associated with the project are withdrawn. Secure funding and sponsorship is often difficult to obtain, as this comment shows:

_We write umpteen letters asking for sponsorships for vehicles. We don’t have a vehicle because the last funded project finished and the vehicle went with the end of the project….._ (Female 2, regional Landcare group. Small group interview. Interview No.7).

The same person explained that funding was needed for basic resources and equipment, and to provide economic incentives for landholders.

_And because we don’t get sufficient funding, we can’t even offer them [the farmers] any subsidies for doing what we would like them to do_ (Female 2, regional Landcare group, small group interview, Interview No.7).

For many groups, funding is needed to lease volunteer centres. One respondent, an unpaid volunteer coordinator, explains the stress of not being able to pay rent on their building:

_While we haven’t got any funding for it at the moment, we’re just hanging in here in an old house and we have a deal with the neighbours not to kick us out_ (Male, urban Landcare group. Personal interview. Interview No. 2).

To be able to fully participate in catchment management, many volunteers are required to travel long distances. Recent funding cuts now mean that volunteers do not even have petrol expenses covered:

_I am also on the Catchment Group [ICM committee] and I have to drive a long way to get there... Our meetings are held in different places, and it could be a 140K round trip. And we share transport as much as possible but I’d like to see funding, you know, even if it was just expenses, it would be good.....The Chairperson, bless her cotton socks, she has about three and a half, four hour drive_ (Female 1, rural Waterwatch, small group interview, Interview No.23).
Funding needs to be predictable and continuous for long-term planning, as this Land
carer explained:

You get [government] funding for one team and you might get six months work
out of that one team and then it might take another two or three months or
another six months to get the funding through again. And in that time, those
water reeds take over again and stuff and then the people have got to come
along and do exactly the same work that you've done five months ago, so in
that way it's very frustrating, because you are not actually getting ahead
(Male 2, regional Landcare, group interview, Interview No.11).

The amount of time spent filling out the paper work to receive more funding, and to
undertake strategic plans was a real problem for some groups:

I think, some of the issues over the last couple of years in regard to the decline
of Landcare around here has actually been NHT processes that we are sort of
being forced to go through. Particularly with regard to developing strategic
plans, which I think we needed but, they cause a lot of internal turmoil, into
what we should be doing and just the amount of reporting and activities
associated with that (Male, member regional Landcare group, and Greening
Australia, personal interview. Interview No.21).

The same person continued:

My standing joke at the moment is looking at ... community capacity building
sort of grants.... it's really worn out a lot of people really, just that whole
process....(Male, member regional Landcare group, and Greening Australia,
personal interview. Interview No.21).

Thus time and resources need to be carefully allocated, to avoid burnout (discussed in
Chapter Six). The problem of burnout is likely to become more prevalent in the
future, as environmental groups take on more and more duties (Byron, Curtis &
Lockwood, 2001). This is reflected in the following comment:
Problem is, our capacity to do this, this is what I’m questioning now. Are we going to have to knock stuff off? (Male, urban Landcare, personal interview. Interview No. 2).

Not all groups are quite so reliant on government support or corporate sponsorship for funding and other resources, and some have come up with strategies for becoming self-reliant, and therefore better able to achieve program outcomes. One participant explained:

We are trying to be a thriving environmental group - not down at heel and always begging, but making our own money…. (Female, member of regional Landcare group, small group interview, Interview No. 24).

Her group has developed a number of money-raising schemes. For example, they hire out box-trailers to farmers and gardeners; they have a shop and a nursery (in separate locations) that sell plants, books and other materials about ecological restoration; they have public information nights at the coordinator’s home with guest-speakers, and ask for a small donation at the door. Such innovation requires constant effort and hard work, to maintain the high profile of the organisation, and to keep the money coming in. Another respondent explained that their group also survives more because of hard work and highly committed volunteers, than because of financial grants. Nevertheless, she acknowledged that they still need some level of government support:

We asked, we put in a submission about three years ago, for some money. I asked the Mayor to write a letter of support….and one of the things that he says is that “this group does not depend entirely on government grants - much more on their own initiatives and hard physical work to achieve their aims. They have proven over a long of time that they work in a diverse community without conflict. In today’s climate these things are an achievement in themselves.” (Female 1, regional tree-planting group, small group interview, Interview No. 22).
Another person in a different discussion explained how the Service Club to which she belongs, raises funds on behalf of other organisations, to keep them going:

*"I’m a member of a Service Club, and we work very hard and really, we do have a lot of programs happening. But a lot of it is to provide money in our community, local community….We are always being asked for money. We don’t like to think our members have always got their hands in their pockets, so we have functions to raise money, but it’s not very big money* (Female 2, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).

### 9.2.1 Summary: empowerment through economic security

Having to spend vast amounts of time and effort chasing funding and resources can be exhausting, contributing to lack of enthusiasm and burnout. Even groups that have developed a range of innovative strategies to raise their own money need support, as the whole process is time-consuming, and taking efforts away from on-ground work. The whole funding and resource allocation for stewardship groups needs urgent attention, to save groups from ultimate collapse. Without economic security, groups cannot be empowered to achieve major tasks.

These reflections confirm the points raised by Ross, Buchy & Proctor (2002), who contend that enormous efforts are required by stewardship groups to seek funding to undertake their work. The continued success of integrated catchment management and the Landcare Movement undoubtedly depends on unstinting government and community support (Ewing, 2000). Further, Ewing warns that devolving responsibility and power without adequate resources does not resolve catchment management issues, and that funding has to be allocated accordingly.
9.3 Empowerment through genuine partnerships that are transparent, inclusive, and based on negotiation

Many participants expressed feelings of powerlessness when it came to decision-making, especially when they attended meetings with different stakeholders. In some situations, respondents who had little experience of working with other agencies were not always successful in being heard, as this person explained:

*So we did this [went to a committee meeting] expecting transparency and openness and found it completely the opposite and it was like, they’d come to the table, they had selected who was going to be the committee members and it was all decided before the official meeting* (Female 1, rural Waterwatch, small group interview, Interview No.18).

The person quoted above felt unable to participate in any decision-making because she and her friend did not have the social networks needed to ensure a position on the committee. Furthermore, they did not know how to garner support. Jensen & Schnack, (1997) contend that knowing how to act is just as important as wanting to act, to be able to effect positive change. This is confirmed by the following comments from a volunteer coordinator:

*If you can bring one message to one politician, but the way you do it’s important too. When I broke through into this feeling, I got very enthusiastic and was trying to get in people’s ear. And that’s not the way to do it - you have got to pick your chances. You’ve got to speak to them when they’re going to listen, not when you’re going to ear bash them* (Male, urban Landcare, personal interview. Interview No. 2).

As Forbes (1987) suggests, the ability to participate confidently and capably in local planning provides the best form of education - education for life, which involves a shift in behaviour as life skills are acquired. These skills take time to acquire, and include the ability to withstand manipulation, as one respondent in this study commented:
Somebody said to me the other day, “You and Joan, you are the only two who are ordinary people, who aren’t being manipulated by the Waterboard”

(Female 1, regional Landcare group, small group interview, Interview No.7).

By and large, respondents in this study adopted a pluralist perspective on participation, where groups and individuals vie for positions of influence within an existing social structure (Ife, 2002). This perspective is also known as a consensus structuralist approach, where there is agreement on what is socially acceptable and what is not. Order and stability is the norm, and individuals and groups agree on the ‘rules of the game’ (Hogg & Abrahams, 1988). Participants must be able to ‘play the game’ effectively to be able to influence decision-making (Ife, 2002, p54). ‘Playing the game’ includes the ability to perceive the motives of other players, and to understand how those in power can try to manipulate others. The process is not always clear, and participants are often left with the feeling that they have been manipulated by others, who know how to ‘play the game’.

Respondents also discussed the importance of being able to ‘play the game’ in terms of the relationships between community groups and authority figures. For example, some respondents expressed frustrations in working with agencies such as waterboards, local councils, and other government bodies. Authority figures may represent barriers to environmental decision-making, as the following example shows.

*Waterwatch is seen as a threat.....Eva’s first testing, her test that she had off her place were completely different to tests she’d sent through the official testing. The results we got the first training day was a heck of a lot higher than what the official results were. It was exactly the same bottle, exactly the same tests, you know. Yeah it wasn’t on different days, because I know on different days the next door neighbour is pumping things like that, that affects it, but it was exactly the same tests, you know - and quite different results* (Female 1, rural Waterwatch, small group interview, Interview No.18).

In the same conversation, the respondents talked about how they felt completely left out of any decision-making, by being deliberately kept in the dark:
Information seems to be used as a weapon, to keep you powerless. They try to keep information away from you…. with our cane …I come from cane farming too, but the cane industry, if they think you’re too green, well they’re defensive and see farming has come under a fair bit of attack. So they become defensive. Which means that you’ve not really got good dialogue, because they’re defensive … [the cane growers think] nobody is going to stop us, and certainly not the little old grey haired lady down the river (Female 1, rural Waterwatch, small group interview, Interview No.18).

Another group had similar experiences with information being deliberately withheld by Council officers:

There are so many reports that have been done on these catchments that the Council has not released to the individual catchment groups (Male 4, urban ICM group – group interview. Interview No.1).

The person quoted above was part of a group discussion that focused on issues of power, and how power struggles are central to daily activities. Members talked about their relationship with their local Council, and how important that relationship was to achieving their goals. They openly discussed many of the frustrations that they collectively felt when working with politicians and bureaucrats.

Sometimes I feel that the bureaucratic process deliberately puts up proposals that are extreme and totally unfeasible, knowing that we will then expend effort fighting against them and come back to what they intend to give in the first place (Male 5, urban ICM group – group interview, Interview No. 1).

Another person in the group added:

The bureaucratic machinery that takes care of the catchment, they will have us in. This is called consultation and they will have us in and listen to what we have to say….then they go away and there is a very long period in which obviously a lot of decisions are being made within the bureaucracy and when
we are invited in again…. there has been a lot of change and we find that frustrating (Male 1, urban ICM group – group interview. Interview No. 1).

In another interview, a respondent expressed concern that the land management agencies didn’t take into account the views of private landholders when making decisions that would affect them:

There seems to be a lot of land management decisions that don’t include the people who are on the land. (They) tell us how to do it and they don’t know what we’re doing (Female 1, rural Waterwatch, group interview, Interview No. 13).

The way some members of different catchment groups were treated by government employees in this study is explained in social theory in terms of power relations. In any given community, some social groups have more power, prestige, influence and status than others (Hogg & Abrahms, 1988). The dominant groups (in this instance, the government agencies) impose their own value system and ideology upon the others (ie the catchment groups), in this way perpetuating the status quo (Hogg & Abrahms, 1988). Sometimes, however, disempowerment is not deliberate, but rather the result of compromise:

Because of the position they are in within society, bureaucrats often try, you know they are expected to satisfy all members of the community, and quite often when something happens it is sort of a compromise. Nobody’s entirely satisfied….and quite often it’s those who are environmentalists, particularly volunteers (Male 2, urban ICM group – group interview, Interview No. 1).

Members of community groups often realise that bureaucrats may from time to time be placed in difficult situations, and in their efforts to appease all sectors of the community, no one is satisfied with the outcome. On one occasion, however, a respondent described a situation where the group was able to influence the Council to such an extent, that they stopped a potentially damaging development from going ahead.
I have been in a community group where I have actually forced the Department of Main Roads to agree to a ‘no option’. We were given at least three options, and we were able to force the Department of Transport, State Department Transport to agree to a ‘no option’. (Male 2, urban ICM group – group interview. Interview No. 1)

One of the keys to success, according to this respondent, was ‘hastening slowly’ when dealing with bureaucracies. In some instances, participants explained that volunteers also need to learn how to ‘play the game’ within their group, as some volunteers do not always “talk” among themselves very well. For example, some participants described how individuals with vested interests joined their group, and managed to manipulate other members, as this person explained:

Catchment management groups always seem to be stacked with people with vested interests. ....There’s a well-known grazier in the area who plants a noxious weed.....A meeting was called where there was to be one speaker from the seed company who sells the stuff. And the outcome of that meeting, the idea of that meeting was to have a vote as to whether or not the upper catchment group supported the use of the weed in the upper catchment. Of course there’s only two of us voted against, one abstention and about eight in favour (Male 1, rural Waterwatch, small group interview, Interview No.23).

Cary & Webb (2000) found in their review of the social dimensions of Landcare that some group members joined to further their own goals, rather than the goals of the organisation. Although most respondents were generally positive about relationships among group members, some expressed disenchantment over the different worldviews and aspirations held by some group members, as this quotation reveals:

When I say we’ve asked them to contribute to our vision for the environment, we have also asked them to do it on our terms. We’ve sat dairy farmers, who have been up since three in the morning, in a catchment committee meeting, which has gone on all day and the poor devils have had to tear home and milk again at four o’clock, and they’ve just gone to sleep. We’re asking them to do
everything on our terms. It’s not going to work (Female, member of regional Waterwatch, ICM & Landcare groups. Personal interview. Interview No. 9).

The respondent’s comments agree with the findings of Foster-Fishman et al, (2001) and Cleaver (2001) who contend that community involvement in environmental management should be easy, non-threatening, and fit around daily routines. As Cleaver comments:

We need to better understand the non-project nature of people’s lives, the complex livelihood interlinkages that make an impact in one area likely to be felt in others and the potential for unintended consequences arising from any intended intervention or act (Cleaver 2001, p22).

The same person also described how some volunteers may disempower other volunteers:

When farmers are sitting on catchment committees for example, they are out articulated by urban people, and I certainly have done that in the past, I know I have (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

When people feel intimidated to such an extent that they cannot participate, the whole process breaks down. In one group interview, a respondent explained how a government official phoned him and asked what they were doing wrong with respect to community participation. He described the conversation in the interview:

I had a CEO ring me the other day and he said, “What do you think we’re doing wrong?” and I said, “Well you think you’re God. You’re sitting there and you think you’re God and you talk down to people, you don’t talk at people, or to people. He said, “You’ve really got that opinion?” and I said, “Yes, you’re dammed right I have!” (Male 1, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).

According to Foucault (1973, cited in Ife, 2002) language and the way it is used to construct ideas and knowledge is central to power relations. From this post-structural
perspective, empowerment comes from changing discourses and by providing alternative vocabularies, common to all participants. The way in which language is used is critical to the process (Forbes, 1987). Learning circles (discussed in Chapter Eight) can be one mechanism for empowering all members of a group. To work effectively, however, there should be an atmosphere of mutual respect, trust and transparency (Foster-Fishman, et al, 2001; Ulrich, 2000). The respondent in Interview No. 9 (above) talked about her experiences as an integrated catchment management (ICM) member where a clash of values and cultural identity led to feelings of disempowerment for some landholders:

*We have a problem in that, some of the people who are doing the revegetation are actually conservationists - very strong conservationists - that’s how they’ve gotten into this. And that’s fine, but there is a certain resistance to that on production land and you can imagine why, because, you know there’s the actual attitude is, I think leaves something to be desired. Come on someone’s property and sort of comment on how much has been cleared and stuff, I don’t think that’s appropriate* (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

The respondent went further, saying that some catchment groups are undermining the very values that some farmers hold:

*Now I have an Aboriginal background, of course I believe in Land stewardship. However, I respect the belief systems of those who do not. Now I think that what we’re doing is asking people, not only to contribute to our vision, we… are challenging their belief systems. We are asking them to change management practices, we are asking the rural people to leave their historical culture behind them* (Female, member of regional Waterwatch, ICM & Landcare groups, personal interview, Interview No. 9).

Another respondent made a similar comment:

*One thing you’ve got to remember is before people are going to make a change they’ve got to admit that everything they’ve been doing is wrong and
it’s very hard for people to come out and say what I’ve been basing my whole life theory on, is wrong. Even if right in the back of their minds they say ‘Yeah look what they’re getting out of it’, they’re not going to come out and sort of say, ‘...well, I was wrong’ (Female 4, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Situations like the ones described by the respondents comments above, are often cited in literature (eg Fischer, 2000; Ife, 2002; Cleaver, 2001; Singh & Titi, 1995). Some landholders may never change their land management practices, as they are integral to their cultural identity. For some farmers, being asked to change their whole way of life is to admit that they and their fore fathers have made grave mistakes, and that their accumulated knowledge and experience is worthless. The close relationship between the conceptions of empowerment and developing/maintaining an identity (discussed in Chapter 5) is once again highlighted. What the farmers always thought of as ‘truth’, may not be ‘truth’ in the eyes of other members of their catchment group:

Each society has its regime of truth, its general politics’ of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true …(Foucault, 1972 in Calhoun et al, 2002, p208, 209).

If the farmers are suspected of not having ‘truth’, and the conservationists in the group are the ones who are perceived as having ‘truth’, then the conservationists become powerful in other group members’ eyes. They no longer see the opinions and values held by the farmers as important. In turn, this disempowerment, can lead to farmers leaving the organisations, disillusioned and unhappy about their experiences. According to Foucault, in this situation, there is a ‘battle for truth’, regardless of what ‘truth’ intrinsically is. The way truth is arrived at is critical to the power struggle:

The problem is not changing people’s consciousneses – or what’s in their heads – but the political, economic, institutional regime of the production of truth (Foucault, 1972 in Calhoun et al, 2002, p209, 210).
This post-structural view holds that such power struggles will only be resolved when each holder of ‘truth’ is allowed to have a voice, one that is heard in a non-threatening, respectful way (Ife, 2002). Some groups cultivated a welcoming atmosphere, and encouraged members to be actively involved in all spheres of activity, from routine tasks to planning, management and decision-making. This inclusive approach resulted in an atmosphere of trust, friendship and inclusion among volunteers, and these groups retained members for long periods of time. The success of one voluntary organisation has been partly attributed to the attitude of all members of the group. People can volunteer on their own terms, choosing when they give their time, and for how long.

_It’s the sort of place where if you’ve just got an hour to spare you can go in on that Friday. You don’t have to commit to being there all morning...because with a lot of volunteer organisations you’ve got to say, “I will be there at three o’clock every Thursday”. It doesn’t suit. Dropping in is good, isn’t it?_ (Female 2, regional tree-planting group, small group interview. Interview No. 22).

In another part of the same interview, one person said that the friendly attitude of fellow group members encouraged people to participate, even when they had been away for long periods of time:

_One lady said to me, she said, “You know, when I come back to the group, I really love coming back because nobody says, “Well, you weren’t here last week.” It’s a case of “Jeez it’s good to see you again. What have you been doing?”_ (Female 3, regional tree-planting group, small group interview. Interview No. 22).

This sense of freedom to be able to choose when to participate is really important for some people. Freedom to choose what tasks to do is also important. In organisations where volunteers were given a range of tasks to choose from, commitment seemed to be greater. In these organisations, volunteers spoke of this freedom of choice as a form of personal empowerment:
It's quite nice to just come in as a volunteer and kind of pick and choose the things, you do (Female 2, regional Landcare, small group interview, Interview No.7).

Another respondent made a similar comment:

I volunteer my time because I’ve got spare time and I want to give it to something and I choose to give it to those things (Male, rural Waterwatch group, personal interview, Interview No. 26).

This sense of freedom is particularly important for people on low incomes, as there are not many opportunities for freedom of choice in other aspects of their lives, as Ife (2002, p57) explains:

…one of the major consequences of poverty is that people have little choice or power to make decisions about their own lives. ….

One of the people interviewed as part of this study had converted her home into the volunteer centre. She had no paid work, and chose instead to volunteer as much of her time as possible to her Landcare group. During her interview, she explained why she chose to live like this:

For me it’s this idea that you push your own envelope. I think is an expression. You go into areas you wouldn’t otherwise go into. A job takes you down a certain track, that’s something that you’re paid to do, whereas it [volunteering] is a freedom, in a sense and being a non-moneyed person, I’m not interested in money, it’s a means to an end. I don’t aspire to have it. By not having it, I am actually freer. And so for all the stuff that I do, I get paid a hundred and seventy-five dollars a week dole money. But that’s freedom money and I can do what I like and I like to do the things that I’m doing (Female, regional Landcare group, small group interview, Interview No. 24).
As Bell explained, people with such positive attitudes help our communities grow and become healthy, because the volunteers have enough confidence in their own abilities to ‘make a difference’.

Volunteering is an act committed in free choice. It is a decision taken in response to our own personal value and belief system at the deepest point. The process follows a wish to change something, a free choice to consider the wish, a prize or valuing of the personal wish and finally the decision to act upon the wish and to make it happen. …We have the capacity to choose to volunteer as a crucial value system to build up the earth (Bell, 1999, p33).

The respondent’s comments above clearly link the conception of empowerment with that of developing/maintaining an identity (discussed in Chapter 5), because on one level, the self-confidence gained by taking such action and influencing others to do the same is empowering. From another perspective, however, the quotation seems to be describing the essence of what that person was identifying with – ie the freedom to use her skills and knowledge to benefit both her local environment and local community. Freedom, in this sense, is part of one’s identity. On the other hand, volunteers should not be expected to undertake government work, as this person rightly points out:

...when you are a volunteer and you’re doing something that you are doing because you thought of it and it was your idea and it’s a good idea and you’re enthused by somebody else that this is a good idea. You’ll do it very willingly and happily. But if you’ve got to actually do something that somebody else wants, especially government you are going to get unwilling (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).

Although other volunteers point out that their work it is not really abrogation of government responsibility, rather it is everyone’s responsibility to become involved in catchment management:

They [the Council] are so heavily reliant on volunteers doing - and I won’t say their work for them - I mean, we’ve all got to do the work together, whether it’s a government or individuals or groups (Male, urban Landcare, personal interview. Interview No.3).
In one group, volunteers explained that they reached their natural resource management (NRM) outcomes through consideration of other volunteers’ views, and careful negotiation with others in the group. As a result, the group experimented with different management approaches based on the perspectives and experiences of different individuals in the group:

*People are still experimenting and trying different ways to see and treat the banks and treat the floodplains and everything else so I think that is quite interesting and I guess we will only learn that as we go along and maybe make mistakes* (Female 1, urban ICM group. Group interview. Interview No.1).

In this study, groups with an inviting, inclusive atmosphere, where all members are welcome and encouraged to participate, yet not obligated to do so, generally had a higher retention of volunteers than those where there was tension and unresolved conflict due to misunderstandings. The complexity of people’s lives, whether in urban, regional or urban settings, has to be well understood and accepted, if they are to participate meaningfully in catchment care groups.

In situations where group members are negotiating with other stakeholders in the wider community, Ewing (2000) suggests that there needs to be clear guidelines regarding expectations for all stakeholders, so that everyone is clear about why they are participating, and what the likely outcomes might be. Stoll-Kleeman & O’Riordan (2002) believe that a partnership approach including the provision of social contracts and appropriate institutional arrangements is the most promising way to achieve successful outcomes for sustaining local biodiversity.

As well as having appropriate institutional arrangements, Jeanrenaud (1999) maintains that understanding social relationships in local communities is critical to effective natural resource management. Community life is complex and includes relationships between individuals and the range of social groups to which they belong. Different types of social groups and communities exist, reflecting a diversity of political, economic, social and cultural influences.
According to Dovers (2000), the current institutional arrangements for community participation in natural resource management need to change, for meaningful community participation in local level environmental decision-making. Pretty (1995) refers to ‘participation’ in rural development projects of various developing countries. In this context, he believes there are two general understandings of the term ‘participation’. One views participation as a vehicle to improve efficiency in project outcomes, whereas the other sees ‘participation’ as a fundamental right, as a means of community empowerment. Both meanings are commonly used, as participation is integral to most contemporary development projects (Pretty, 1995, p1251). Yet, participation is seen by authorities as a two-edged sword:

The dilemma for many authorities is that they both need and fear people’s participation. They need people’s agreements and support, but they fear that this wider involvement is less controllable, less precise and so likely to slow down planning processes (Pretty, 1995, p1252).

Pretty warns that if this fear of losing control and slowing down the progress of development projects leads to tokenism, where participation is undertaken because it has to be done, public distrust will ensue. It would be far better to be transparent, and state openly what type and level of public participation is acceptable. Ife (2002), agrees, and recommends that institutions become more responsive, accessible and accountable to all members of a community, not just those in positions of power. In addition, the groups themselves have to be sustained so that they can continue to provide an alternative voice. Part of sustaining an environmental group is having access to funds and resources. This is discussed further under the conception of sustainable (Chapter Ten).

9.3.1 Summary: empowerment through genuine partnerships that are transparent, inclusive, and based on negotiation

Catchment volunteers often feel that they cannot contribute effectively to local environmental decision-making, especially when they attend meetings with different stakeholders. The situation appeared worse for people with little experience or understanding of ‘how to play the negotiation game’. One very experienced respondent suggested that hastening slowly was the key. He felt that when people first
joined a catchment group, there was a strong desire to see results quickly. Yet to be successful, this respondent maintains that volunteers should temper this sense of urgency with patience and persistence, and at the same time gather as much information, skills and support about pertinent issues as possible. This confirms Jensen & Schnack’s (1997) assertion that knowing how to act is just as important as wanting to act, to be able to effect positive change. It also reinforces Forbes (1987) contention that the skills people need for effective public participation take time to acquire. As the results of this study indicate, there are very few opportunities for truly interactive citizen participation in catchment management. There are unresolved issues with respect to power struggles, and these are further complicated by chronic lack of resources. Mechanisms that allow all land managers to participate easily, whether farmers, agency staff, community members or other interested stakeholders, should be in place so that solutions to catchment issues will endure beyond the life of funded projects, programs and organisations.

9.4 Empowerment for sustainable action

Results indicate that along the coast of Queensland, there are unresolved issues with respect to internal and external power struggles, and these are further complicated by chronic lack of resources. The findings presented here confirm the observations of Ross, Buchy & Proctor (2002) that despite some obvious differences in personal perspectives, stewardship volunteers have developed a collective ethos and sense of shared responsibility for natural resource management, helping people to understand the impacts of their activities on the environment. Although there may be frustration with authority figures, individuals and groups can develop power of their own, as long as they are patient and persistent. Data obtained in this study, and reflected in current literature, suggest that volunteering is empowering when it contributes to the acquisition of personal skills and confidence of each volunteer; it enables individuals to participate in decision-making in inclusive, equitable and meaningful ways; and, it is undertaken within the context of a well-resourced, supportive group that can negotiate skilfully with a variety of influential individuals and organisations. Community catchment groups can provide personal and group empowerment, resulting in a “little voice” as opposed to none.
The next chapter, Chapter Ten discusses ‘catchment volunteering’ as something, which is *sustainable*. Participants largely saw catchment volunteering as different to other forms of volunteering as the volunteers took a long-term view of their actions. The conception of *sustainable* is linked to the conception of *empowering* as respondents recognised that to keep going, they have to have adequate resources and funds.
Chapter Ten

Visions and vocations - sustainable volunteering

The river gives me so much, I like to give something back to it. So I get a warm fuzzy feeling because I can give something back to the river that gives me so much. So I get enjoyment out of doing it [water quality monitoring]... It’s part of my life anyway….

(Male, rural Waterwatch group, personal interview. Interview No.26).

10.0 Introduction

Since the Brundtland Commission’s definition of sustainable development (WCED, 1987), there have been at least 70 more definitions constructed, each different in subtle ways, each emphasising different values, priorities and goals (Pretty, 1995, p.1248).

Understandings and the use of the term ‘sustainable’ varied considerably among participants in the study. Some perceived sustainability as something intrinsic to human and natural systems; many viewed the sustainability of their group as being directly linked to the availability of funding and resources; and others were concerned more with the sustainability of their local environment. The chapter begins with a discussion of each of the three themes that emerged from this conception: (a) sustaining natural resources; (b) sustaining catchment groups and programs; and (c) sustaining catchment volunteering as ‘a way of life’. The chapter concludes by offering suggestions from the data and from the literature about ways to sustain catchment volunteering for future generations.
10.1 Sustaining natural resources

The focus for many catchment volunteers was on developing sustainable systems. As one respondent suggested:

*Volunteering helps me realise and reinforce how everything you do impacts on the environment and the environment’s what sustains us. I think it’s the whole circular thing of life* (Female 2, regional Landcare group, small group interview, Interview No.7).

Many participants spoke of the benefits of stewardship for future generations accrued through volunteering. One participant saw catchment volunteering as distinctly different from other forms of volunteering because of the long-term commitment and vision required of environmental volunteers:

*You feel as though you have to be in there for the long-term…. even though there is immediate gratification… I’m thinking of hundreds of years down the track… I look at a tree which I know, has a lifespan of over 500 years, and I’ll try and picture it…. I try and wonder what sort of people will be around and if our birds and animals we are trying to keep from going locally extinct, will be still around… I can’t think of anything which is more long term* (Male, urban Bushcare group, personal interview, Interview No.6).

The same person continued:

*I love going and seeing… the wildlife using the area that we have restored, or regenerated. And there is something can live there now that was without a habitat before. A new species might even move into the area, that might have been there once and habitat had been destroyed and we’ve put it back and now it can come back. And they’re wonderful experiences. That’s more or less the rewards you get for it* (Male, urban Bushcare group, personal interview, Interview No.6).

Another distinguished environmental volunteering from other forms of volunteering because of the time scale involved:
I suppose there are people, who care first of all about people, and they’re the ones who will go and help people who are confined to their homes and need their meals brought, and there are those like me who feel, well people will benefit down the track, because we are fighting to keep the natural world, you know. My first thought, my first aim is to help the natural world because it’ll kinda disappear if we don’t...(Female, urban Bushcare group, personal interview. Interview No.5).

A similar sentiment was echoed by this person, who believes that deep rewards come after long periods of hard work:

*It is what we have done, the foundations we have laid down over a number of years and the success we have seen now. It is more the fruition of that persistence and that is where you reap the deep rewards. You have got to be persistent* (Male 1, urban ICM group – group interview, Interview No. 1)

When people are feeling that nothing has been achieved, because the results are not obvious, those long-term volunteers are there to remind them of the group’s achievements:

….you have to look back long-term and think what it was like five years ago and you can see big differences (Female, member of regional ICM & Landcare groups, personal interview, Interview No. 10).

A young traveller from New York explained why she liked doing environmental volunteering:

*It’s been rewarding….[volunteering] makes you feel good, because you’re doing something that’s good for the environment, that you normally wouldn’t be able to do at home. Because my home, we don’t have like beautiful rainforest to help conserve because they’re already been, you know, destroyed…. (Female 1, international volunteers, group interview. Interview No.16).*
10.2 Sustaining catchment groups and programs

One factor that was seen by many participants as being critical to the longevity of catchment groups was the appointment of a permanent paid coordinator with good leadership skills.

*It’s a very, very difficult, wide-ranging program we’ve got at the moment. [It’s] hard to manage and hard to keep going. We need, we really need to get another paid position* (Male, urban Landcare, personal interview. Interview No. 2).

Several respondents explained that chronic lack of funds hindered group goals:

*We are trying to get funding to get someone on a part-time basis so they can go out and see schools every week or go to a school and go to a group and go to places, like go to Rotary groups and give a talk ...a volunteer coordinator would be good.....every time we’ve applied for it, we haven’t got it* (Male 1, regional Landcare, group interview, Interview No.11).

All of the benefits of networking that one coordinator accrued over her three year contract with a catchment group were wasted, according to one respondent, because her position was no longer funded, and she had to find alternative employment:

*The funding arrangement for paying for the coordinator is finished, so I mean that is sad, but all of those relationships that she has developed, they are not going to disappear, but they will fade. When the next coordinator, a year from now comes along, (we will get funding for another coordinator and it won’t be Ann, because she will have moved on) and this new person has to re-establish all of those contacts and that takes time* (Male 5, urban ICM group – group interview, Interview No. 1)

As the respondent explained, networking is one factor that is critical to the longevity of the group, as it contributes to group learning, empowerment and identity (discussed previously). By the time a new coordinator has re-established links within his/her
community, the funding runs out, and the process begins again. In the meantime, volunteers try to continue without a funded coordinator, but without direction. Many volunteers feel lost, unable to continue. A high turnover of volunteers ensues, and these new recruits have to be trained. The whole cyclical process makes it hard for many groups to achieve their program outcomes.

The fear of not having a volunteer coordinator to maintain the momentum of the group is articulated by the following respondent:

*In a lot of volunteering there’s a majority of people that would like to turn up, and do a good job if someone tells them what the right thing to do is.... One of the big worries is to replace the coordinators in this eventually. Until I could be satisfied with replacing ourselves there, I couldn’t bare to give it away and see it collapse and start to be neglected and so on.... And this, I think could be weak point in the volunteering scene* (Male, urban Bushcare group, personal interview, Interview No.6).

This point of view was reinforced by a respondent in another group, who stressed the importance of having an experienced coordinator with access to expert knowledge that could lead a group of volunteers towards successful outcomes:

*I would like to emphasise that volunteers are fine but they can only be really effective if they’ve got some expert advice and help available to them, either a coordinator for the group or access, as we had, to the National Parks Nursery. Volunteers don’t know, they may be a planting a weed, and the whole project may fail. Now how are they going to feel about carrying on?* (Female 1, regional tree-planting group, small group interview, Interview No. 22).

Much of the success of the Landcare Movement in the past was attributed to the continued financial support that these groups received from the National Landcare Program component of the National Heritage Trust. In New South Wales alone there are 90 funded Landcare Coordinators, many of them full time. Unfortunately, future funding for these positions is not guaranteed (Heilpern, Wright & Tkachenko, 2000). Evidence suggests that Landcare groups with paid Coordinators tend to have a more
positive outlook than those where the funding for such positions has been cut. In some of these less fortunate groups, anger and despair seems to surface due to lack of government support (Heilpern, Wright & Tkachenko, 2000). This reinforces the notion that voluntary environmental care groups, like other many other voluntary organisations, fluctuate in their ability to perform consistently, and this is often due to external as well as internal factors. One of the problems articulated by Dovers (2000) is the lack of certainty about annual funding.

Under the current government’s competitive tendering model, non-profit organisations have to compete with one another for funding (Warburton & Mutch, 2000). As Pearce noted (1993, p18), the performance of a voluntary organisation is judged by others, and in particular by those who hold the purse strings. If a group is not seen as performing certain tasks, it may lose it’s funding. Smith & Berg, (1987, p186) argued that similar groups should view their roles as being complementary rather than competing with other groups, and should take on a collaborative approach to the overall issue. By avoiding competition for resources and funding, all groups can move forward, learn and change (Smith & Berg, 1987).

Yet as a member of one rural Landcare group mentioned, some groups survive very well, without a paid coordinator, as long as there are clear goals, shared by members of the group.

*Groups evolve in different ways – at this stage for Coastcare its important to have a coordinator, but maybe down the track the group can keep going by itself* (Female 3, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Nevertheless, a general lack of funding, basic resources and having enough dedicated volunteers were recurrent themes discussed by the majority of participants, as major barriers to sustainability (and empowerment - discussed in Chapter Nine) of catchment groups and projects. One person explained that the Landcare group to which he belonged were always having to re-trace their steps, re-planting and re-weeding areas that had not been maintained due to lack of volunteers and resources:
We’re finding trees everywhere just old tree plantings just been let go and it’s a real shame and we try to work but there’s a lot to do...there’s too few people (Male 4, regional Landcare, group interview, Interview No.11).

Several respondents discussed the problem of how to successfully recruit and retain volunteers – some organisations seemed better able to motivate people to join than others. One rural Landcare member despaired:

I’m trying to find a way to increase the number of volunteers ... I don’t know how I’m going to get the younger generation in....nothing seems to be working at the moment (Female 1, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Another person in the same group discussion wondered if the lack of volunteers was due to a fear of being injured while doing volunteer work, and then not being adequately compensated by the catchment group:

A lot of people won’t volunteer because of liability, they’re too scared of you know, if they hurt themselves who’s going to..... pay for their bloody house or for their living? (Male 1, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).

Yet volunteers who are prepared to take risk, and not worry about compensation are those who are perhaps the most dedicated, and are willing to stay with the group despite uncertainties. To keep going well into the future, groups need a core of willing volunteers. A respondent who was a member of a well-established group talked about the problems an acquaintance had in establishing a new environmental group elsewhere:

One of the women who wanted to start it [the new volunteer group] came up and asked John and I what were the things they needed and we told them a nursery with expert advice and volunteers. And they found a lassie with expert advice, but it hasn’t worked like here. Somehow or other they haven’t got the retired people who’ve still got quite a bit of work in them to join and they
haven’t got a regular Friday morning meeting time. They still do tree plantings and they get some volunteers to come and do things but they haven’t got the core, which we are lucky to have....

(Female 3, regional tree-planting group, small group interview, Interview No. 22).

Part of the reason the well-established group have a loyal core of volunteers is due to their welcoming attitude and acceptance of every new face. The fact that there is diversity among members is seen as something good, something to be valued for itself. Diversity has been a characteristic of this group since it began in the 1970’s. Such inclusiveness encourages people to stay for a long time.

We get such a mixture of people. Little children crawling about on the heaps of potting mix. Old people who are so old they can’t stand up at the potting bench any more.....some people from the Endeavour Foundation....We have the Americans from the field studies school.....We have Aboriginal training groups.....since the nineteen seventies....they (the tree-planting group) have catered for them. They find something that everybody can do. You can, according to your skills and your ability, you find a niche (Female 3, regional tree-planting group, small group interview, Interview No. 22).

New members are welcomed to the group, and tasks are tailored to suit the range of skills and abilities the volunteers have. One urban Landcare group in this study was also successful in retaining volunteers, again, because they considered the skills, personalities and interests of their volunteers:

When we get new volunteers we try as much as possible to give them variety...that’s what I mean by looking after them and try and make it interesting ... we are obviously doing something right for them to keep coming back, for a long, long time (Female urban Landcare group, personal interview, Interview No. 4).

Comments like those above strengthen the importance of developing or maintaining the personal identity of volunteers (discussed in Chapter Seven). Identity and
sustainability reinforce one another. Yet for many respondents, recruiting and retaining volunteers is not enough to maintain the sustainability of a catchment organisation.

Pretty & Frank (2000) argue that a balance of corporate and government support feature in the history of long-serving, community-based environmental care groups. They suggest that there has to be sufficient existing investment in human, social and natural capital and mechanisms in place to allow for the transitions and restructures typically associated with environmental care groups.

10.3 Sustaining catchment volunteering as ‘a way of life’

For some, volunteering was seen simply as a ‘way of life’ - a vocation. One respondent explained that her family members volunteered for a number of organisations when she was growing up, and so it was a natural progression for her. Initially, she was the president of her local Jaycees club, and was invited to be on the committee for a local community group that was opposed to development a section of urban bushland. In time, this group grew into a catchment coordinating committee, and so today, she is the secretary of the catchment coordinating committee. She described her personal history of volunteering during her interview:

*Mum used to always volunteer at the school tuck shop and Dad was in Apex and they used to volunteer, run chook raffles for the local school whatever, so in my lifetime, volunteers have been a part of my life ever since I was tiny. And my children have always known volunteering, from before they were born, you always go off to meetings and after they were born, you know, come in the prams until they were too big and crawl round the floor and cause any trouble. So in their life, volunteering is a big part, so I’m just hoping that as they get older, that they will realise that sharing available time with other people is an important thing* (Female urban Landcare group, personal interview, Interview No. 4).
For this person, the social benefits of contributing to her local community were clearly worth the effort of giving so much of her spare time to voluntary work:

*I mean if I wasn’t here, I’d be sitting at home cleaning the house or crocheting or something. And I personally hate sitting and doing absolutely nothing. So I find coming here to volunteer, I really enjoy it mixing with people finding out what people are doing* (Female urban Landcare group, personal interview, Interview No. 4).

This person had worked out how to combine her voluntary work with her family life so that both benefit. For example, she described how she combined her children’s playtime, and maintaining a tree-planting site:

*When we go Friday afternoon to the park with the children to play, I’ve been taking my buckets and watering a planting that we did just near the park* (Female urban Landcare group, personal interview, Interview No. 4).

Volunteering as a ‘way of life’ was expressed in a different way by this person, a cane farmer’s wife:

……whenever we go back there now and we have sold that land, we look at those trees with fun and they are magnificent ….and the whole district always comment that was forethought to plant those trees and we met some nice people that have helped us establish the trees and it was a good thing …It is nice to go back and see those trees growing. I have always liked trees anyway and I like to encourage children with trees and I have helped with going to the schools at times…. (Female 4, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).

She could see the value in teaching children about the benefits of tree-planting in her local community, and inspiring the next generation to take up the challenge of landscape restoration. In a completely different way, another respondent also describes his voluntary work as ‘a way of life’. This person is a tour operator on a north Queensland River. He takes tourists to see the natural wonders of the Wet
Tropics World Heritage Area on his small boat, and at the same time, tests the quality of the river water:

_The river gives me so much, I like to give something back to it. So I get a warm fuzzy feeling because I can give something back to the river that gives me so much. So I get enjoyment out of doing it [water quality monitoring]... I don’t actually collect water samples for a living, but I’m out in the environment every day. I work seven days a week....It’s part of my life anyway,.... (Male, rural Waterwatch group, personal interview. Interview No.26)._

He is not doing the work for the social benefits of volunteering, but because he identifies so strongly with the river. He feels that just as the river sustains him and his lifestyle, so he would like to help sustain the river. His comments have almost religious significance, (discussed in Chapter Seven) and once again, reinforce the strong links between the conceptions of identity and sustainability.

A respondent in an urban bushcare group can see connections between community identity, self-worth and well-being:

_I think it is still great to have volunteers to give those people a sense of community, a sense of worth in themselves and what they can do to help the community, not necessarily just the human community, I mean the whole of the life forms on the planet. And a sense perhaps then of some way of ownership although I don’t think we should feel that we own these sort of things. More a sense of participation in the world I think_ (Male, urban Bushcare group, personal interview. Interview No.6).

Participating in the world and being an active member of a community can be empowering (discussed in Chapter Nine) as well as enormously satisfying. One person summed up his feelings by saying:

_And as I say people are willing to do the right thing, if it’s fair, if it’s made so that they can do the right thing_ (Male 2, mixed rural group, Landcare,
The wish and ability to be able ‘to do the right thing’ can also be enormously satisfying, contributing to a particular way of life. This can only be achieved however, if there are appropriate institutional arrangements in place, and adequate resources to enable people to become involved. Volunteering as a ‘way of life’ can strengthen these benefits for individuals, communities and local environments. Dovers (2000) agrees and calls for the institutionalisation of a tradition of catchment volunteering, to replace clubs and other organisations that have folded in recent years. Yet Bell (1999) warns that volunteering as a ‘way of life’ will only occur, if it is firmly intertwined with existing local customs and traditions:

….The volunteer movement becomes strong in our land only when we are able to root it firmly in our own society and the customs of all our people within civil society (Bell, 1999, p37).

10.4 Sustainable catchment volunteering

Participants often spoke of the importance of their work for future generations of people, plants and animals. They spoke of maintaining local biodiversity, and of rehabilitating degraded lands and waterways. Such principles of sustainability were often articulated, even if the word ‘sustainable’ was not used. Many spoke of ensuring the work they were doing now would be continued and built upon in the future. At the same time, respondents expressed reservations about the likelihood of the sustainability of their work, and the longevity of the organisations to which they belonged. A permanent, paid coordinator with good leadership skills; a core of highly committed, diverse volunteers; a welcoming atmosphere; clear group goals; and continuous funding were seen as critical for sustaining community-based catchment care groups well into the future. Some respondents saw volunteering as one part of their life that was equally important as any other aspect. In this respect, volunteering was seen as sustainable, as it is something that they have always done, and will continue to do in the future, regardless of funding, resources or any other considerations. This aspect of the conception of sustainable parallels the findings in
the conception of *seeking/maintaining balance*, as volunteers strive to balance different aspects of their lives.

This study suggests that sustainable catchment volunteering is built by empowering citizens through the processes of networking and learning; and by cultivating a particular community identity, formed from values beliefs, and interests - developed over time and through traditions. These findings confirm Bell’s (1999) observations:

… sustainable volunteer effort springs from our histories, traditions and personal belief systems. It is drawn too from our sense of spirit or national identity and comes from our cultural and artistic awareness, our own inner self (Bell, 1999, p37).

The final chapter of the thesis, *Catchment volunteering in the balance*, describes how each of conceptions relate to each other, and these are represented diagrammatically as an Outcome Space. The chapter concludes by making recommendations for catchment volunteers and other catchment management stakeholders, to ensure the sustainability of catchment volunteering into the future.
Chapter Eleven

Catchment volunteering in the balance

What is the expression of our humanness, if not to live our lives, struggling with the dynamic of an impossible balance. This is something that lies within each of us and therefore within our societies. To know, imagine, sense, think, to some extent even to understand, this constant dynamic is to express civilisation’s essential nature. What is normal behaviour? Is it not to seek equilibrium? (Saul, 2001, p.317).

11.0 Introduction

As stated in Chapter One and again in Chapter Five, the focus of this thesis is to build a picture of the actions and experiences of catchment volunteers, and to determine whether these have implications for local level sustainability. Specifically, the research questions were:

**Question One:**
What are the ways in which catchment volunteering is experienced in coastal communities in Queensland?

**Question Two:**
In what ways do the experiences of catchment volunteers influence resilience and sustainability in stewardship groups?

The preceding chapters (Chapters Six to Ten) present the conceptions unveiled through a discussion of experiences described by the participants. Each of the conceptions is brought together diagrammatically to form an Outcome Space. This diagram forms a framework for discussion throughout this final chapter. Apart from
showing the relationship between conceptions described by catchment volunteers, the Outcome Space is used to develop several other conceptual and practical outcomes in relation to the second research question. For example, elements of the Outcome Space, together with Holling’s (1986) adaptive cycle, were combined to pinpoint factors influencing resilience and sustainability in stewardship groups. These are discussed in Section Two of this chapter.

11.1 What are the ways in which catchment volunteering is experienced in coastal communities in Queensland?

Six major conceptions were revealed from analysis of the interviews. Each represents the ways in which participants experienced ‘catchment volunteering’. The conceptions and the relationships between them are discussed in turn, to develop the Outcome Space. In this study the Outcome Space emerged as a set of scales, signifying the importance of keeping a balanced perspective on volunteering - a balance between things such as personal goals and organisational goals; between dedication to an unpaid vocation and family life; and between social benefits and environmental benefits (refer to Figure 11.1).

11.1.1 Conception One: Seeking and maintaining balance

![Seeking/maintaining balance](image)

**FIGURE 11.1: Seeking and maintaining balance**
Struggling to achieve balance is revealed as an underlying theme, influencing all of the other conceptions. Striving for balance affects decision-making, problem-solving, individual actions and group dynamics. Hence, the conception of seeking and maintaining balance is placed as the fulcrum in the diagram, as aspects of each conception need to be balanced.

According to Stevenson, (2002) the experience of community life is paradoxical, embracing individual and communal wants and needs; conflict and harmony; discomfort and comfort. Stevenson argues that these opposing forces should be recognised and nurtured, as they help to bind people together by creating communal understandings, meaning, and shared visions through active engagement among individuals. Lawrence & Deagen (2001) discuss factors influencing ‘quality of decisions’ in natural resource management. They contend that a balance between personal and organisational goals, and between long-term broad outcomes and short-term objectives, can influence the quality of decisions. They state that often ‘public goals’ are at odds with ‘management agency goals’, and natural resource managers need to consider the balance between conservation goals and local community needs, to develop a set of shared goals.

Similarly, Napier & Gershenfeld (1999) contend that goals are central to the concept of groups, influencing all aspects of group life. They argue that groups with a common goal that is clear to all individuals tend to have more satisfied members that those with poorly articulated goals that are not shared by its members. In addition, Napier & Gershenfeld (1999) argue that groups with a clear, shared view of goals have higher levels of member participation than others. As well, successful groups tend to be realistic about the aspirations of the group, and have appropriate performance indicators that balance the experience and expertise of its members (Napier & Gershenfeld, 1999).

Smith & Berg (1987) argue that decision-making is influenced by the tendency to only consider positive aspects of group dynamics and interactions among group members. They point out that common complaints and mixed emotions such as ‘…frustration, hostility, compromise, slowness, and periods of ’stuckness’ that also punctuate life in groups’ are often ignored (Smith & Berg, 1987, p4). They believe
that there is perhaps too much attention placed on positive aspects of group life such as creativity and satisfaction, at the expense of attention to negative emotions. Yet balancing positive and negative aspects of group dynamics can actually enable a group to become more effective in the long term (Smith & Berg, 1987). Balancing the skills, experiences, and age of members helps a group explore a full range of perspectives offered by its members (Smith & Berg, 1987). Diversity of members ensures a group can undertake its complete suite of tasks effectively. As well, diverse groups having strong relationships with other organisations, therefore will potentially learn more effectively than others. Thus networking among members of a group should be balanced by networking between groups in the wider community to enhance both bonding and bridging social capital building.

11.1.2 Conception Two: Developing/maintaining an identity

![Figure 11.2: Developing/maintaining an identity](image)

In the Outcome Space, the conception of *developing/maintaining an identity* is placed as the arm of the scales, signifying the dominance of this conception. It was held by almost all of the participants to a greater or lesser degree. Some volunteers spoke of their experiences almost entirely in terms of their identity, and the consequences (both positive and negative) of being identified in certain ways by members of their group and by outsiders. This study revealed that identity is a great motivator for a lot of volunteers, and includes identity developed through personal convictions, values and respect for the Earth; social identity; ecological literacy; and finally through a ‘sense
of place’. When people are particularly attached to a place, and that place is destroyed, they experience profound loss and distress (Seamon, 1996). In the case of catchment volunteering, this is experienced when years of hard work centred on one place are destroyed through vandalism or a lack of resources to keep going.

Despite social mobility and technological advances, Relph (1996) believes that people will always need some ‘sense of place’, as identifying with place helps to determine personal identity. Relph (1976, cited in Seamon, 1996) contends that if a person feels inside a place, they feel safe and comfortable rather than exposed or threatened. Thus, consciously creating a ‘sense of place’ can help build the social identity of a stewardship group. At the same time, if ‘bonding ties’ within a group are developed at the expense of ‘bridging ties’, social exclusion and narrow-mindedness may result (Seamon, 1996; Cox, 1999).

11.1.3 Conceptions Three and Four: Learning and networking

Conception Three, learning was experienced on a number of different levels by different respondents. For some, learning was related to personal growth, while others saw learning as much broader, leading to community change. Conception Four, networking, was experienced on several levels. Once again, there was a personal dimension, where networking provides rich personal experiences as well as a social

FIGURE 11.3: Learning and networking
dimension, where networking was seen as a powerful tool for alerting and activating community members about catchment issues. The conceptions of learning and networking are discussed together as they reinforce and complement each other, enabling both personal and community change. The conceptions of learning and networking are depicted in the Outcome Space as the handles of the bowls, linking the arms to the bowls. Each complements the other.

Through learning and networking, appropriate actions can be taken to help in problem-solving, whether the issue is an environmental one, or one pertinent to the smooth running of a program or organisation. Learning and networking were experienced in this study through collective actions and experimentation, and the sharing of knowledge and skills. Networking and learning were experienced between individuals within a group; between members and non-members; and between different groups.

The different ways of learning and networking described by respondents in this study also help accumulate community knowledge. The importance of community knowledge in natural resource management is increasingly being recognised (eg Carr, 2002; Allen & Bosch, 1996; Allen et al, 1998). Information gained through experiential observations and activities could be documented and linked to other current information and shared with others in the community. In this way, a combination of local and other expertise could lead to deliberate and positive actions by both individuals and community groups. For example, Bosch et al (1996) note the volume of farmer knowledge attained through many years of experience and experimentation, and suggest the development of an online database for capturing this valuable local knowledge. By combining local knowledge with other sources of information, a comprehensive decision-support system can be built to help reach natural resource management goals. Via the internet, an extensive knowledge-base can be built and shared among different sectors of the community (Bosch et al, 1996).
11.1.4 Conception Five: **Empowering**

**FIGURE 11.4: Empowering**

Personal and community change are further strengthened through experiences discussed under the conception of *empowering* (Conception Five). Empowerment refers to the process of gaining influence over events and outcomes of importance that may unfold at the individual, group, or community level (Fawcett, et al, 1995). Results reveal that positive benefits to volunteers and their groups can accrue from a sense of empowerment. Personal empowerment was experienced as camaraderie, mutual respect, and gaining confidence. Group empowerment was experienced as finding creative solutions to achieve community support, political gains and overcome a chronic lack of resources. The conception of *empowering* underpins and links conceptions of developing/maintaining an identity, networking, and learning. This is because place-based issues (integral to the development of identity) are central to catchment volunteer groups, and group members are mobilised through social networking and on-going experiential learning (Friedmann 1992, in Carr, 2002). This is confirmed by Meyer (2001) who states:

> … environmental politics consists of our struggle over the creation, use, preservation, alteration, and degradation of place. This struggle is defined by our relationships to these places and our experiences in them, in all their complexity and diversity (p.138).

Data obtained in this study suggest that volunteering is empowering when undertaken within the context of a supportive group that has well established networks with a
variety of influential individuals and organisations; it contributes to the acquisition of personal skills and confidence of each volunteer; and it enables individuals to participate in decision-making in meaningful ways. Hence, in the Outcome Space, the conception of *empowering* is placed at the centre of each bowl, linking arms and handles.

An important aspect of empowerment discussed by many respondents in this study was the ability to participate meaningfully in local level environmental decision-making. One famous typology of decision-making power cited frequently in the literature is Sherry Arnstein’s “ladder of participation” (Arnstein, 1969). Although written over thirty years ago, her basic messages about power and how it is used in a variety of different settings for public participation still hold. The ladder can be applied to many situations involving communities and the amount of meaningful participation they have. Arnstein’s typology indicates the level of citizen involvement at each rung on the ladder of participation. Manipulation is at the bottom rung of Arnstein’s ladder, and total citizen control at the very top. Partnerships are towards the top of the ladder (Arnstein, 1969). Through his involvement in rural development projects in a number of different countries, Pretty (1995) developed a typology of citizen participation, clearly based on Arnsteins’ (1969) ladder. Pretty’s typology indicates that participation has many forms and meanings, and in situations where ‘participation’ is espoused, clarification of the term is needed. For this study, the researcher developed a typology of participation in catchment management, based on both Arnstein’s and Pretty’s typologies. This is shown in Table 11.1.

Several of the respondents’ comments were at the bottom end of the ladder where manipulation and withholding information were rife. Only one participant spoke of her group as ‘self-mobilising’ – that is, at the top of the ladder. Both Arnstein and Pretty’s typologies are uni-dimensional and hierarchical, and illustrate clearly how different degrees of empowerment are linked to different levels of community participation in collective decision-making.
**TABLE 11.1: A typology of participation in catchment management**
[Adapted from Arnstein (1969) and Pretty, (1995)]

<table>
<thead>
<tr>
<th>Rung on the ladder</th>
<th>Level of participation</th>
<th>Examples of quotations from interviews (from results of this study) that match typology</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Self-Mobilisation</td>
<td>Citizens and groups take initiatives independent of influential agencies, and retain control over how resources are used.</td>
<td>We are trying to be a thriving environmental group - not down at heel and always begging, but making our own money…(Female, member of regional Landcare group, small group interview, Interview No. 24).</td>
</tr>
<tr>
<td>6. Delegated power</td>
<td>Citizens are in the majority, and can make decisions. Public accountability is assured.</td>
<td>I have been in a community group where I have actually forced the Department of Main Roads to agree to a ‘no option’. We were given at least three options, and we were able to force the Department of Transport, State Department Transport to agree to a ‘no option’. (Male 2, urban ICM group – group interview. Interview No. 1)</td>
</tr>
<tr>
<td>5. Interactive Partnership</td>
<td>People participate in joint development of action plans, using multiple perspectives and learning processes.</td>
<td>[Volunteering] gives ’little me’ a voice in the community that speaks to government and speaks to funding bodies (Female 3, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14). People are still experimenting and trying different ways to see and treat the banks and treat the floodplains and everything else so I think that is quite interesting and I guess we will only learn that as we go along and maybe make mistakes (Female 1, urban ICM group interview, Interview No. 1).</td>
</tr>
<tr>
<td>4. Functional Participation</td>
<td>Participation tends to arise only after major decisions have already been made.</td>
<td>The bureaucratic machinery that takes care of the catchment, they will have us in. This is called consultation and they will have us in and listen to what we have to say….then they go away and there is a very long period in which obviously a lot of decisions are being made within the bureaucracy and when we are invited in again….. there has been a lot of change and we find that frustrating. (Male 1, urban ICM group - group interview. Interview No. 1)</td>
</tr>
<tr>
<td>3. Informing</td>
<td>No channels for feedback - one way flow of information to inform the public</td>
<td>There seems to be a lot of land management decisions that don't include the people who are on the land. (They) tell us how to do it and they don't know what we're doing (Female 1, rural Waterwatch, group interview, Interview No. 13).</td>
</tr>
<tr>
<td>2. Pretence</td>
<td>Participation is simply a pretence, with 'people's' representatives on official boards but who are unelected and have no power.</td>
<td>Sometimes I feel that the bureaucratic process deliberately puts up proposals that are extreme and totally unfeasible… (Male 5, urban ICM group – group interview, Interview No. 1).</td>
</tr>
<tr>
<td>1. Manipulation</td>
<td>Non-participative withholding information, changing information</td>
<td>Information seems to be used as a weapon, to keep you powerless. They try to keep information away from you…. (Female 1, rural Waterwatch, small group interview, Interview No.18).</td>
</tr>
</tbody>
</table>
Nevertheless, results uncovered by this study confirm the findings of Ross, Buchy & Proctor (2002) and Buchy & Race (2001) that the nature of participation in natural resource management is more complex than this. For example, this study suggests that empowerment leading to personal confidence by undertaking new or challenging tasks can boost self-esteem and lower rates of depression, ultimately improving the quality of life for volunteers, their friends and families. Empowerment through group learning and sharing skills, which are passed on to new members, can lead to positive and long-term environmental outcomes. Through an understanding of the different forms of empowerment that is occurring within catchment groups, it may be possible to encourage appropriate levels of participation by volunteers in a variety of group activities. Forms of empowerment revealed by participants in this study may occur simultaneously – one form does not negate the presence of others (see Table 11.2).

### TABLE 11.2: Forms of empowerment in catchment management

<table>
<thead>
<tr>
<th>Form of empowerment (NOT a hierarchy)</th>
<th>Description and possible outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Empowerment through personal and group transformation</strong></td>
<td>Volunteering results in personal changes such as increased self-esteem, confidence, learning new skills, and developing friendships. Participation involves undertaking regular NRM on-ground activities and attending meetings</td>
</tr>
<tr>
<td><strong>Empowerment through economic security.</strong></td>
<td>Community groups should receive on-going government support in terms of adequate funds and resources. Economic incentives are provided so that volunteers can participate effectively in NRM eg to attend meetings or implement NRM projects. In addition, citizens and groups should take fund-raising initiatives independent of influential agencies, and this way, retain control over how resources are used.</td>
</tr>
<tr>
<td><strong>Empowerment through genuine partnerships that are transparent, inclusive, and based on negotiation</strong></td>
<td>Clear guidelines and expectations for all stakeholders participating in NRM. Implementation of social contracts to be adhered to by all stakeholders. Volunteering is seen as non-threatening, inclusive and welcoming. Activities are scheduled to suit the majority of participants. Social benefits of volunteering are considered to be of paramount importance. Volunteering is centred on the needs of the volunteers, as much as the goals of the organisation. Citizens can participate with confidence and competence, and can have an equal say in decision-making. Each individual is listened to within an atmosphere of respect and trust. Public accountability is assured. Relationships among volunteers and between groups and agencies are based on understanding, appreciating and utilising the range of different perspectives, knowledge, skills and experiences held by individuals. Experimental approaches are preferred for solving NRM problems.</td>
</tr>
</tbody>
</table>
Yet even in social groups and communities where citizen participation is optimal, citizens may still be disempowered, if they do not understand how to act in ways that change the root causes of environmental problems (Jensen & Schnack, 1997). This once again highlights the links between learning, networking and empowerment. Lawrence & Deagen (2001) also note the need to consider a range of social and environmental values and emotions in decision-making, and recognise that problem-solving in natural resource management is complex, with no single answer providing a solution.

11.1.5 Conception Six: Sustainable

The final conception depicted in the Outcome Space is that where catchment volunteering was seen as sustainable. This conception is drawn as the bowls of the scales, relying on all of the other conceptions. Notions of sustainability varied widely among respondents. Some referred to sustaining the group, others spoke of sustaining volunteering as a way of life, and some spoke of sustaining their local environment for future generations. Results of this study suggests that sustainable catchment volunteering is built by empowering citizens through the processes of networking and learning; and by cultivating a particular identity, formed from values, beliefs, and interests - developed over time and through traditions.
These findings add to Bell’s (1999) observations:

… sustainable volunteer effort springs from our histories, traditions and personal belief systems. It is drawn too from our sense of spirit or national identity and comes from our cultural and artistic awareness, our own inner self (Bell, 1999, p37).

One way of ensuring sustainability of our natural resources is to encourage and institutionalise a tradition of environmental volunteering - a tradition that includes friends and relatives, and fosters the development of a social fabric, flowing from an ecological base.

Results of this study add to the literature referring to the importance of having a permanent leader. This person undoubtedly contributes to the sustainability of groups. Often the coordinator or group leader is the only paid position within a voluntary organisation (Pearce, 1993). According to Curtis et al (2000) Landcare groups with paid coordinators tend to function more effectively than those not having a paid coordinator. Evidence suggests that Landcare groups with paid coordinators tend to have a more positive outlook than those where the funding for such positions has been cut (Heilpern, Wright & Tkachenko, 2000). In an ideal situation, all stewardship groups would have a permanent, funded coordinator who could concentrate on becoming an effective leader rather than expending huge amounts of energy on fund-raising. Results of this study suggest that effective leaders are central to the sustainability of groups.

Results of this study also add to the literature regarding group dynamics. It appears that the sustainability and effectiveness of catchment groups is to some extent shaped by the group experience, and also to the infrastructure and resources provided by the group or program (Rosenthal, Feiring and Lewis, 1998; Kilgore, 1999; Warburton & Mutch, 2000; Dovers, 2000). As discussed throughout this thesis, flexible approaches to management are critical for meaningful ‘civic engagement’ to occur. Scully & McCoy (2002) explain what they mean by the term ‘civic engagement’:

Civic engagement implies meaningful connections among citizens and among citizens, issues, institutions, and the political system. It implies voice and agency, a feeling of power and effectiveness, with real opportunities to have a say. It implies active participation, with real opportunities to make a difference (p.118).
Scully & McCoy (2002) found that communities where there was widespread, meaningful civic engagement had particular characteristics. The first of these characteristics is labelled as ‘deliberative dialogue’. This involves active listening and genuine attempts to understand each participant, as well as critical thinking and reasoned argument in decision-making and problem-solving. Scully & McCoy contend that this approach contributes to relationship building and problem-solving, and useful in addressing policy issues. Successful civic engagement combines deliberative dialogue with careful community organising to maximise public participation (Scully & McCoy, 2002). An important aspect of community organising involves strengthening relationships between individuals and between social groups, to bring large numbers of people together in cost-effective ways, for meaningful dialogue that will result in action and change (Scully & McCoy, 2002).

11.1.6 Final details – beyond the Outcome Space

Experiences described by the participants in this research show that catchment volunteers can make positive contributions to natural resource management through persistence, patience, innovation, commitment, and creativity. This study suggests that sustainable catchment volunteering is built by maintaining a balance between public life, paid work and family life; empowering citizens by instilling confidence and developing personal skills; ensuring there are adequate resources to undertake local level natural resource management tasks; fostering active networking and learning; and by cultivating a particular identity, formed from ‘a sense of place’, values, beliefs, and interests. Volunteers in this study were more likely to see themselves as activists or stewards undertaking a long-term vocation, rather than short-term ‘service providers’.

As discussed throughout this thesis, catchment volunteers have an essential role to play in natural resource management across Australia. They are particularly valuable as the work is undertaken for no financial rewards. Understanding why people continue to volunteer their time for catchment management is critical in facilitating and sustaining the work that they do. Many of the volunteers expressed deep levels of satisfaction about their volunteering experiences. Results suggest that satisfied volunteers are those that manage to balance their time successfully between unpaid work, paid work and family life. Satisfied volunteers identified strongly with some
aspect of the group such as the goals of the group or program; other people in the
group; and/or the places where the volunteering takes place. They were generally keen
to learn from their volunteer experiences, and were willing and able to share and
apply their new knowledge in a variety of ways. Respondents who expressed
satisfaction with volunteering spoke of the friendships they had made through the
group, feeling valued by others in the group, and believed that what they are doing is
important. Satisfied respondents were likely to view volunteering as ‘a way of life’-
personally enriching, fulfilling and deeply satisfying. Several spoke of the values,
ethics and visions that they shared with other volunteers. For respondents in this
study, catchment volunteering contributes richly to the fabric of their lives, providing
meaning and satisfaction in routine activities, enhancing local communities and
building sustainability.

Satisfied volunteers were likely to remain with their group for a long time. From this
study, factors that motivated individuals to keep going include: belonging to a group
with a welcoming atmosphere; personal attachment to, and inspiration, enjoyment and
satisfaction derived from the places where voluntary work is undertaken; regarding
volunteering as a vocation, and as an ethical enterprise requiring long-term
commitment; finding a ‘niche’ within their group; developing a sense of freedom;
having a sense of belonging to, and participating in community life through voluntary
work; reaping long-term, rich rewards from voluntary work; discovering therapeutic
aspects of voluntary work; gaining confidence; having a voice in decision-making;
developing a sense of purpose; new experiences, learning, maintaining skills, sharing
concerns, working together, doing something interesting, and; being able to influence
individuals and bureaucrats in NRM decision-making. These attributes of drivers for
catchment volunteering are illustrated through direct quotations from the study in
Table 11.3
TABLE 11.3 Drivers for catchment volunteers

<table>
<thead>
<tr>
<th>Drivers/motivation for catchment volunteering</th>
<th>Examples of quotations from interviews (from results of this study) that illustrate drivers for catchment volunteering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcoming atmosphere</td>
<td>One lady said to me, she said, “You know, when I come back to the group, I really love coming back because nobody says, “Well, you weren’t here last week.” It’s a case of “Jeez it’s good to see you again. What have you been doing?” (Female 3, regional tree-planting group, small group interview. Interview No. 22).</td>
</tr>
<tr>
<td>Attachment to place</td>
<td>It [volunteering] makes me go to the river. It’s lovely to get back down there...I spent four hours wandering up and down the creek, but I had a lovely time... (Female 1, rural Waterwatch, group interview, Interview No.13).</td>
</tr>
<tr>
<td>A vocation</td>
<td>Mum used to always volunteer at the school tuck shop and Dad was in Apex and they used to volunteer, run chook raffles for the local school whatever, so in my lifetime, volunteers have been a part of my life ever since I was tiny. And my children have always known volunteering, from before they were born, you always go off to meetings and after they were born, you know, come in the prams until they were too big and crawl round the floor and cause any trouble. So in their life, volunteering is a big part, so I’m just hoping that as they get older, that they will realise that sharing available time with other people is an important thing (Female urban Landcare group, personal interview, Interview No. 4).</td>
</tr>
<tr>
<td>Long-term, rich rewards</td>
<td>I love going and seeing... the wildlife using the area that we have restored, or regenerated. And there is something can live there now that was without a habitat before. A new species might even move into the area, that might have been there once and habitat had been destroyed and we’ve put it back and now it can come back. And they’re wonderful experiences. That’s more or less the rewards you get for it (Male, urban Bushcare group, personal interview, Interview No.6).</td>
</tr>
<tr>
<td>Therapeutic</td>
<td>I suppose it’s therapeutic, ....it’s very relaxing and plus, you know you’re doing something good....Get’s me out of bed in the morning, to do something worthwhile as I see it (Male 3, Central Queensland ex-Green Corps and ex- Green Reserves group interview, Interview No. 15).</td>
</tr>
<tr>
<td>Finding a ‘niche’</td>
<td>We get such a mixture of people. Little children crawling about on the heaps of potting mix. Old people who are so old they can’t stand up at the potting bench any more....some people from the Endeavour Foundation....We have the Americans from the field studies school.....We have Aboriginal training groups....since the nineteen seventies.... You can, according to your skills and your ability, you find a niche (Female 3, regional tree-planting group, small group interview, Interview No. 22).</td>
</tr>
<tr>
<td>Gaining confidence</td>
<td>That’s [volunteering has] changed me in the sense that I don’t feel any fear from anyone above me...The way I look at it now, I never get nervous going into a meeting with a politician or anyone...It doesn’t matter what he (the politician) thinks of me, anymore, that’s not the point... (Male, urban Landcare group. Personal interview. Interview No.2).</td>
</tr>
<tr>
<td>Having a voice</td>
<td>[Volunteering] gives ‘little me’ a voice in the community that speaks to government and speaks to funding bodies (Female 3, mixed rural group, Landcare and Coastcare members. Group interview. Interview No. 14).</td>
</tr>
<tr>
<td>Inspiration</td>
<td>I used to go down there [the creek] to look for inspiration for drawings and paintings... (Female, urban Bushcare group, personal interview. Interview No.5).</td>
</tr>
<tr>
<td>Belonging to, and participating in community life</td>
<td>I think it is still great to have volunteers to give those people a sense of community, a sense of worth in themselves and what they can do to help the community, not necessarily just the human community, I mean the whole of the life forms on the planet. And a sense perhaps then of some way of ownership although I don’t think we should feel that we own these sort of things. More a sense of participation in the world I think (Male, urban Bushcare group, personal interview. Interview No.6).</td>
</tr>
<tr>
<td>Sense of purpose</td>
<td>Giving people something to do.... If [volunteering] raises their spirits... all sorts of awful things can happen when people get depressed, you know...you seem to sit down and go into a little hole....so it’s good to be out there and being a part of it (Female Waterwatcher. Personal interview. Interview No. 20).</td>
</tr>
<tr>
<td>Learning</td>
<td>I get better understanding of the river system in doing it. I get a better understanding</td>
</tr>
</tbody>
</table>
Results of this study have contributed to an understanding of what motivates people to become involved in stewardship groups and programs, and why some people remain active in their groups. Through these insights, a better appreciation of what may be achieved in terms of NRM outcomes may be reached. It seems that the quality of
social relationships formed through volunteering plays a crucial role in determining
the retention rate of volunteers. An inclusive, welcoming group offering interesting
tasks, friendships and the opportunity to meet like-minded people, all contribute to
positive social relationships.

As Bell (1999) points out, volunteering is largely comprised of ordinary men and
women, doing what they love to do, and achieving great results. They make constant
small decisions, several times a day about how much time to spend on various
activities, both within the group and as individuals leading busy lives. The
contributions they make to both the environment and to society are reflected in the
struggle to maintain a dynamic equilibrium. When human decisions are out of
balance, whole communities may be affected (Saul, 2001). Volunteering offers a way
for individuals to be active in balanced decision-making and problem-solving, on a
personal level, within groups, and at a broader community level, resulting in benefits
to individuals, society and the environment.

11.2 In what ways do the experiences of catchment volunteers
influence resilience and sustainability in stewardship groups?

In ecological terms ‘resilience’ is the ability to withstand stress, to keep going under
pressure, and to adapt to change (Cocks, 2003; Walker et al, 2002; Folke et al, 2002;
Holling, 2000). In social terms, ‘resilience’ refers to stoicism, persistence, hope,
patience, tenacity and staunchness (Deveson, 2003). These two aspects of resilience
complement the goal of social and ecological sustainability and its focus on
maintaining options for the future. Results of this research suggest that positive
volunteering experiences can lead to resilience and sustainability – at a personal,
group and local landscape level. Within the context of the adaptive cycle and
questions posed in Chapters Two, Three and Four, it may be possible to predict ways
of decreasing the difficulties or obstacles for resilience and sustainability in
stewardship groups, and expand upon the experiences revealed by the study that may
enhance resilience and stability. Figure 11.6 illustrates the ways in which voluntary
stewardship groups may operate within the adaptive cycle.
α – innovation, renewal, social transformation, social movements form

r – adaptation, learning, experimentation, risk takers, innovation, novelty

K – many niches, stable, bureaucratic

Ω - creative destruction; increase in uncertainties

From Ω to α - rapid changes – active individuals

From r to K – social processes at work
  Conceptions of identity, networking, learning, empowerment, sustainable are evident. Sharing of values, visions among stakeholders, may include the development of social contracts
  as K plateaus, resilience decreases – inflexible & brittle institutions– need for balance

From K to Ω rapid changes- destruction/ restructuring of groups, institutional arrangements

From α to r changes begin to slow, cycle starts again – regrouping of individuals, lots of stakeholder groups with different views, values, aspirations

**FIGURE 11.6 Stewardship groups and the adaptive cycle**

In the transition from r (characterised by adaptation, learning, experimentation, risk taking, innovation, and novelty) to K (representing stable, highly organised social systems based on bureaucracies and numerous institutions), ‘connectedness’ between different social groups & individuals increases, and ‘self-help’ strategies develop to take advantage of changing circumstances (Holling & Gunderson, 2002).

In the research undertaken for this study, the conceptions of ‘identity’ and ‘empowerment’ are significant social processes and outcomes along this path from r to K. Here strategies take shape as collective ideas are exchanged and built upon through social learning and social capital accumulation (Scheffer et al, 2002). In this study, these are experienced as the conceptions of ‘learning’ and ‘networking’. As the system progresses, the conception of ‘sustainable’ emerges. The conception of ‘sustainable’ expressed by participants in the study reveals the desire to maintain stewardship groups and programs into the future. The institutionalisation of stewardship groups and their roles in local communities occur at this stage. Thus, both resilience and sustainability are built from r to K. This part of the cycle represents the
long trek associated with the development of social processes that enable the system to adapt to changing circumstances.

Results of this study suggest numerous opportunities for strengthening this stage of the cycle, so that social systems (in this instance, stewardship groups with a catchment focus) can continue to function even when changing circumstances may cause difficulties. These opportunities are summarised in the first column of Table 11.4.

Approaching K, connectivity between individuals and groups increases to the point where the whole social system (ie communities, or groups within communities) becomes rigid and predictable and paralysis may set in (Holling & Gunderson, 2002). Information is harder to access, and may become lost within a mire of social conventions and hierarchies (Cocks, 2003). On the brink of K, social systems become vulnerable and likely to collapse. Triggers that may ultimately lead to the collapse of the system (ie the rapid journey from K to $\Omega$) were revealed in the study, and are listed in the second column of Table 11.4.
### TABLE 11.4 Enhancing the adaptive capacity of stewardship groups

<table>
<thead>
<tr>
<th>Resilience and sustainability in catchment groups and their local communities may be achieved by</th>
<th>Avoiding triggers leading to vulnerability and/or collapse in catchment volunteering may be achieved by</th>
</tr>
</thead>
</table>
| **Seeking balance in**  
- personal, social, environmental, and economic benefits  
- unpaid work, paid work and family life  
- community, group and personal goals/vision  
- approaches to natural resource management  
- theory and practice  
- ‘expert’ knowledge and local knowledge  
- institutional arrangements  
- power within stewardship groups and between groups and other stakeholders  
- values, perspectives of different stakeholders  
- problem-solving  
- rights and responsibilities of stakeholders | **Reducing in factors leading to volunteer ‘burnout’ such as:**  
- lack of volunteers or resources  
- lack of recognition of volunteer efforts  
- being manipulated by people in power  
- losing direction within the group  
- paid workers disempowering volunteers  
- being left out of the decision-making process  
- lack of community awareness, knowledge and interest in local ecology & catchment groups  
- clash of ideologies/paradigms  
- frustrations with political/bureaucratic decision-making  
- constraints on government officers  
- having to compete with similar groups for funding  
- abrogation of government responsibility  
- volunteer efforts stifled by bureaucracy  
- mis-matching jobs/tasks with individuals  
- volunteers seen as taking the place of employed people  
- lack of recognition that environmental care work can be physically uncomfortable, and have few rewards |
<table>
<thead>
<tr>
<th>Resilience and sustainability in catchment groups and their local communities may be achieved by</th>
<th>Avoiding triggers leading to vulnerability and/or collapse in catchment volunteering may be achieved by</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Creating opportunities to enhance</strong>&lt;br&gt;• understanding of causes and effects of environmental problems;&lt;br&gt;• effective governance of natural resources&lt;br&gt;• community participation in policy formulation&lt;br&gt;• networking&lt;br&gt;• free exchange of information&lt;br&gt;• social identity of the group&lt;br&gt;• connections with specific places&lt;br&gt;• shared values, memories, ethics, visions, experiences, language, camaraderie, friendships, social support, knowledge, skills within and between groups, and beyond groups to the wider community&lt;br&gt;• personal satisfaction, rewards, enjoyment, relaxation, fulfilment&lt;br&gt;• being pro-active&lt;br&gt;• an integrated approach to catchment management&lt;br&gt;• caring for other people, for the environment and for future generations&lt;br&gt;• a collective memory of an area&lt;br&gt;• the development of ecological literacy and ecological identity at a personal, group and community level&lt;br&gt;• equitable decision-making within groups and at a community level&lt;br&gt;• gaining confidence/self-worth&lt;br&gt;• personal freedom&lt;br&gt;• professional development&lt;br&gt;• the ability to influence bureaucratic and political processes, and decision-making&lt;br&gt;• the capabilities of key actors in the community to achieve group goals&lt;br&gt;• community awareness and understanding of causes and effects of key issues&lt;br&gt;• open learning and learning by ‘doing’/experimental, adaptive approaches&lt;br&gt;• training for volunteers and interested citizens&lt;br&gt;• fostering relationships with other organisations/diversity of people&lt;br&gt;• personal identity of volunteers&lt;br&gt;• diversity of members&lt;br&gt;• innovation, creativity, novelty&lt;br&gt;• routine/regular tasks/defined roles&lt;br&gt;• recognition of different spatial and temporal scales of problems and issues</td>
<td><strong>Increasing opportunities for social learning to reduce difficulties such as:</strong>&lt;br&gt;• the need to reconcile different opinions about prioritising efforts/tasks&lt;br&gt;• not having adequate expertise within the group for new members to learn from&lt;br&gt;• volunteers not showing initiative or being pro-active&lt;br&gt;• volunteers not knowing how to mobilise community members&lt;br&gt;• not targeting social events accurately&lt;br&gt;<strong>Increasing opportunities for social capital accumulation to reduce difficulties such as:</strong>&lt;br&gt;• not networking for fear of criticism by others in the community&lt;br&gt;• organisations closing down, creating gaps in the network&lt;br&gt;• not knowing who to contact, or how to make contact&lt;br&gt;• other barriers to networking eg personalities, mistrust differences in values, visions and ways of operating&lt;br&gt;• catchment strategies not ‘owned’ by community groups&lt;br&gt;• governments not releasing important information to the public&lt;br&gt;• not accepting other points of view&lt;br&gt;• individuals with vested interests joining groups</td>
</tr>
</tbody>
</table>
The importance of maintaining balance - the major conception expressed by participants in this study - emphasises the need to develop strategies to avoid vulnerability and collapse.

The researcher developed a range of strategies as possible guidelines to help volunteers cope with externalities acting upon their groups (refer to Table 11.5 below). Each of the quotations in the Table 11.5 illustrates how volunteers in this study coped with different with externalities acting upon their group. These strategies are the result of purposeful, thoughtful actions, demonstrating ‘action competence’ among catchment volunteers (Refer to Chapter Two, Section 2.4). The quotations show how volunteers are able to take deliberate actions to overcome some of the negative impacts accrued through external forces acting on stewardship groups, and at the same time, can act in ways to enhance favourable externalities. Attributes of resilient, sustainable groups can facilitate action competence. So can economic incentives and institutional reform. Social contracts outlining incentives and institutional arrangements that benefit all stakeholders undoubtedly facilitate action competence, resilience and sustainability. Resilience is critical for action competence, as Noel Pearson (cited in Deveson, 2003, p 9) argues: ‘with resilience comes strength and action; without it comes weakness and victimhood’.

These findings reinforce the view of Cocks (2003) that resilient social groups and communities embrace change, innovation, diversity and new knowledge. As well, they have a large ‘adaptive capacity’ for coping with change (Folke et al, 2002). Folke et al (2002) explain that the adaptive capacity of a system is the ability of the system to cope with new situations while maintaining options for the future. They identify four critical factors that are essential to building adaptive capacity in communities: learning to live with change and uncertainty; nurturing diversity for resilience; combining different types of knowledge for learning; and creating opportunities for self-organisation towards sustainability. Folke et al (2002) suggest that the way social groups (in this instance stewardship groups with a catchment focus) respond to environmental issues and problems can either destroy or build resilience.
### TABLE 11.5 Responses to external forces that may enhance resilience and sustainability in stewardship groups

<table>
<thead>
<tr>
<th>Some external forces influencing stewardship groups</th>
<th>Responses to external forces (from participants of this study) that demonstrate resilience and sustainability</th>
<th>Towards guidelines to enhancing resilience and sustainability in stewardship groups (Targeted at core members of relevant groups and networks - including coordinators)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rights and responsibilities</td>
<td>They [the Council] are so heavily reliant on volunteers doing - and I won’t say their work for them - I mean, we’ve all got to do the work together, whether it’s a government or individuals or groups (Male, urban Landcare, personal interview. Interview No.3).</td>
<td>1.1 Have a clear picture of the roles and responsibilities of the group, individual members, and the wider community.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2 Develop written descriptions of roles and responsibilities for volunteers, including short-term goals, and ensure individual skills and interests are met.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3 Match skills, interests and expertise with available tasks to keep members motivated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4 Wherever possible, volunteers should have the freedom to choose the type of work they wish to undertake.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5 Consider a range of social contracts for volunteers and with different organisations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.6 Strive to understand the goals of different stakeholders and the organisations to which they belong.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.7 Work cooperatively with other agencies</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Some external forces influencing stewardship groups</th>
<th>Responses to external forces (from participants of this study) that demonstrate resilience and sustainability</th>
<th>Towards guidelines to enhancing resilience and sustainability in stewardship groups (Targeted at core members of relevant groups and networks - including coordinators)</th>
</tr>
</thead>
</table>
| 2. Landscape                                      | I’m very conscious of what it used to be like and I just want to see as much of it go back as we can, but with local involvement, because if people do it, then they take responsibility for it and they’ll care for it and that’s really important (Female 1, regional Landcare, small group interview, Interview No.7). | 2.1 Encourage all members of the community to take responsibility for landscape restoration.  
2.2 Foster a ‘sense of place’ to encourage citizen responsibility for landscape restoration. This may be done through information evenings, field trips, and hands-on activities, so that volunteers have lots of opportunities to share local history, memories and knowledge about specific places.  
2.3 Promote features of local landscapes in recruitment campaigns. |
| 3. Uncertainty                                    | ….back to the unforeseen circumstances. … what I always appreciated about Neil was….his fresh approach and the three of us as a group working together shared…coming from a different perspective, shared our skills, and I think that has been part of the strength I think. And of course we have now got other people coming in and we want to broaden our approach…(Male 3, urban ICM group – group interview, Interview No. 1). | 3.1 Work out what skills, experience, interests and expertise are held by individuals, to cope with uncertainty and risk  
3.2 Strive for diversity of members, as many different perspectives can lead to successful outcomes.  
3.3 Encourage each member to play an active role in decision-making.  
3.4 Uncertainty over funding may be avoided to some extent through self-funding strategies such as:  
• having a shop or nursery  
• hiring equipment to farmers and gardeners  
• having guest-speakers, and asking for a small donation at the door  
• using individual members homes as a meeting place to avoid paying rent |
<table>
<thead>
<tr>
<th>Some external forces influencing stewardship groups</th>
<th>Responses to external forces (from participants of this study) that demonstrate resilience and sustainability</th>
<th>Towards guidelines to enhancing resilience and sustainability in stewardship groups (Targeted at core members of relevant groups and networks - including coordinators)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Indigenous knowledge and experience</td>
<td><em>We hope this year Sarah is going to take them into the rainforest and do a little walk with them and tell them how she used to live there with her grandfather. Sarah is an Aboriginal lady. I often stand in that rainforest and I think, fancy having to get all your food and all your clothes and your shelter from this lot. And no shopping centre to go to. And it really brings you up short. And her mother would have done that, her grandparents would have actually been in that position. So I’m hoping she will do that</em> (Female 3, regional tree-planting group, small group interview, Interview No. 22).</td>
<td>4. Share stories, knowledge, skills, expertise and experiences to revitalise interest in indigenous issues and culture. 4.2 Foster traditions that promote ecological identity.</td>
</tr>
<tr>
<td>5. Values</td>
<td><em>I just enjoy working with people who have got such great ethics, you know. The people here just all believe in the same sorts of things and there’s no great conflicts</em> (Female 1, regional Landcare, small group interview, Interview No.7).</td>
<td>5.1 Work together to develop friendships, shared values and visions. 5.2 Create opportunities for people to meet ‘like-minded’ people.</td>
</tr>
<tr>
<td>6. Obligations and conventions</td>
<td><em>I’ve been a farmer all my life and a lot of the land that I’ve owned, or my family have owned it says on the title “You shall clear within so many years all bar a small amount of shade for the house and I mean, the sad thing was that we farmers have always got the blame for clearing the land when really the authorities at the time were really at the back of it. And that sort of made me want to try and do the right thing</em> (Male 1, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).</td>
<td>6.1 Challenge assumptions about obligations and conventions if they prevent people from ‘doing the right thing’. 6.2 Promote and reinforce conventions and obligations that promote natural resource management.</td>
</tr>
<tr>
<td>7. Political climate</td>
<td><em>…having spent eight years in the Council, it has given me an understanding of appreciation of a person trying to do the right thing but being constrained and knowing the political, well it is coming down from the boss. I think the skill is in trying to understand those constraints operating on that particular bureaucrat when your dealing with them</em> (Male 5, urban ICM group – group interview, Interview No. 1).</td>
<td>7. Try to understand the constraints of those who can influence political outcomes.</td>
</tr>
<tr>
<td>Some external forces influencing stewardship groups</td>
<td>Responses to external forces (from participants of this study) that demonstrate resilience and sustainability</td>
<td>Towards guidelines to enhancing resilience and sustainability in stewardship groups (Targeted at core members of relevant groups and networks - including coordinators)</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| 8. Participatory processes, institutional arrangements | *It [our plan] was actually adopted by council against the pretty strong reactions, knee jerk reactions of the majority of councillors. A couple of councillors actually stood up and said, “Look it mightn’t be what you would want, it’s what the community wants, they’ve worked at it, this is what they want, give it to them.”* They actually came through (Female, member of regional Landcare group, small group interview, Interview No. 8). | 8.1 Be persistent in voicing community concerns in a range of different settings.  
8.2 Try to ‘hasten slowly’ when dealing with bureaucracies. At the same time, set short-term achievable goals to keep members interested and active in the group. |
| 9. Human relationships | *Jan has worked very hard to keep communication open, even with groups that might typically be seen as anti-environment and we’ve been able to score some members who have been reasonably active who you would least expect to join, because of that personal contact and involvement at that level* (Male, member of regional Landcare group, small group interview, Interview No. 24). | 9.1 Develop strategies to ensure open communication among different groups in the local community.  
9.2 Keep working to break down barriers within the community.  
9.3 Foster networks with a range of individuals, groups and community institutions.  
9.4 Recognise that networking can contribute to creativity and innovation. |
| 10. Policy development | *In the water area where you’re trying to change things it’s not just the community that’s digging in, its actually the professionals…So that’s why I’ve got onto the Australian water association because then I can actually work with people who are involved in the industry….* (Female, member of regional ICM and Landcare groups, personal interview, Interview No. 10). | 10.1 Work with influential people to develop relevant policy.  
10.2 Be prepared to take calculated risks to facilitate change.  
10.3 Be prepared to join a lobby group to voice your concerns.  
10.4 Within the group, keep volunteers actively involved in all aspects of the organisation, including policy formulation, project planning and management. |
<table>
<thead>
<tr>
<th>Some external forces influencing stewardship groups</th>
<th>Responses to external forces (from participants of this study) that demonstrate resilience and sustainability</th>
<th>Towards guidelines to enhancing resilience and sustainability in stewardship groups (Targeted at core members of relevant groups and networks - including coordinators)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Social paradigms</td>
<td>Social change occurs, you know, very, very slowly and our group is a vehicle for that. Being in a group as active and as well resourced as ours, I realise that ours is a wagon that will move about as fast as social change will get (Male, urban Landcare, personal interview. Interview No.3).</td>
<td>11.1 Remember that social change is slow. Encourage hope, persistence and patience.</td>
</tr>
<tr>
<td>12. Community</td>
<td>This is a lovely little community you know, it’s a great sort of place to do this sort of thing [catchment volunteering], lots of families and all that sort of stuff and people who are interested because it is their place that they want to be at (Female 2, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14).</td>
<td>12.1 Publicise and emphasise social as well as environmental benefits of catchment volunteering in recruiting campaigns.</td>
</tr>
<tr>
<td>13. Biodiversity</td>
<td>I used to just rely on saving up a couple of dollars in between each pension day and go in and buy two or three trees and put them in. But before I bought the trees I’d spend some days up to two days researching or if I saw a tree in a nursery, I’d research it….You learn a lot about trees, you learn a lot about the environment … working through Landcare. I’d learn about Australian Native trees and trees endemic to this area (Male 3, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17).</td>
<td>13.1 Encourage personal research about local species and biodiversity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.2 Develop a range of strategies to foster individual, group and community learning about biodiversity eg demonstration sites, field days, working bees, and public displays, on-line database.</td>
</tr>
<tr>
<td>Some external forces influencing stewardship groups</td>
<td>Responses to external forces (from participants of this study) that demonstrate resilience and sustainability</td>
<td>Towards guidelines to enhancing resilience and sustainability in stewardship groups (Targeted at core members of relevant groups and networks - including coordinators)</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>14. Ecosystem goods and services</td>
<td>And I realised then that it’s no good saying you don’t want a dam, you’ve got to come up with some alternatives... We now have Queensland Water recycling strategy and that is about to be launched (Female, member of regional ICM and Landcare groups, personal interview, Interview No. 10).</td>
<td>14.1 Develop alternatives to current pressures on ecosystem goods and services through creativity and visioning exercises.</td>
</tr>
</tbody>
</table>
| 15. Citizens, lifestyles                           | .. it’s [the environmental problem] been pointed out to them on numerous occasions and letters to the local paper and the Mayor replies and then they [local citizens] write replies back... it’s really democracy in action (Female 1, regional Landcare, small group interview, Interview No.7). | 15.1 Remember that one person can make a difference – deliberate, daily actions can have cumulative effects on large institutions.  
15.2 Encourage citizens to take well thought out, deliberate actions in response to local environmental issues.  
15.3. Promote volunteering as ‘a way of life’ so that it is a part of everyday activities, yet not something that overshadows other aspects of people’s lives.  
15.4. Remember that people are more likely to volunteer at certain stages in their lives – eg when they are without dependent children, or when they have retired from paid work.  |
| 16. Complexity of everyday life                   | My father.. had a very active life in numerous organisations, and when he retired we used to have to make an appointment with him to see him, because he was just never home. He was treasurer of this and president of that and I think he thought that no one could do without him and then he died suddenly from a heart attack..... that’s certainly not what’s going to happen to me (Female 1, regional Landcare, small group interview, Interview No.7). | 16.1 Be realistic about what volunteers can achieve.  
16.2 Be vigilant to avoid ‘burnout’.  
16.3 Adhere to daily schedules and keep a calendar or diary to help in time-management. |
<table>
<thead>
<tr>
<th>Some external forces influencing stewardship groups</th>
<th>Responses to external forces (from participants of this study) that demonstrate resilience and sustainability</th>
<th>Towards guidelines to enhancing resilience and sustainability in stewardship groups (Targeted at core members of relevant groups and networks - including coordinators)</th>
</tr>
</thead>
</table>
| 17 Environmental degradation                      | *I think with Landcare, our basic role is to identify these [environmental] problems, have a look, find out where the source is, and investigate the source. We also see what developments are going on, have a look at those and see if they are going to be of any detrimental affect whatsoever on the future of that system* (Male 3, mixed rural group, Landcare, Waterwatch, local Progress Association, recreational fishers. Group interview, Interview No. 17). | 17.1 Always try to investigate the source of environmental problems.  
17.2 Foster experimentation in problem-solving and seek information from a variety of sources. |
| 18. Resources and infrastructure                  | *This centre [building] here I think is crucial….Having a one-stop position that they [local residents] can come to, and information is presented at their level and I stress at their level, by that you are trying to develop an ambience of where they feel that, hey there is something here that they can learn, something here that they can contribute and I think the ambience of the place, everybody has got something to contribute, some form or other and is welcome and of course they are wanted and I see those going hand in hand* (Male 2, urban ICM group interview, Interview No. 1). | 18.1 Continue to lobby for resources and infrastructure that will enable groups to achieve their goals.  
18.2 Remember that a ‘sense of place’ can be consciously created through the use of a communal meeting place, such as a community centre. |
| 19. Climate, seasons and daily schedules          | *A lot of the things that we are involved in apart from Landcare are land-related and being graziers it sort of, all tied up in that whole circle. So it’s normal to meet up with a chain of people and talk about the weather and the soil and the grass and all those type of things* (Female 1, mixed rural group, Landcare and Coastcare members, group interview, Interview No. 14). | 19.1 Realise that landholders’ work is very closely linked to climate, seasons, and daily schedules (eg dairy farmers) and that their ability to volunteer their time is constrained by these influences – especially in times of drought. |
| 20. Economic climate                              | *And because we don’t get sufficient funding, we can’t even offer them [the farmers] any subsidies for doing what we would like them to do* (Female 2, regional Landcare group, small group interview, Interview No.7). | 20.1 Try to influence decision-makers and funding bodies that may not be aware that many people on the land are suffering from a general decline in the rural economy, and are having difficulty in achieving NRM outcomes that require funding to be achieved. |
From Table 11.5, the researcher constructed a model which is presented in Figure 11.7. The model illustrates how a ‘buffer zone’ comprised of particular personal and group attributes can foster resilience and sustainability in stewardship groups. The resilience of stewardship groups depends in part, on how well they cope with externalities. The inner circle represents the core of dedicated volunteers who are the backbone of stewardship groups. The next circle represents stewardship groups. The outer circle is a buffer zone, containing attributes that help groups and volunteers to cope with positive and negative external forces.

FIGURE 11.7 A buffer zone for resilient, sustainable stewardship groups.

This model was tested with a group of 20 people who were involved with natural resource management, but not part of the original study. This was done by presenting the model in a workshop at the Annual General Meeting of the Central Highlands Regional Resources Use Planning Co-operative (CHRRUP) in Emerald, Central Queensland. The meeting was comprised of representatives from different community sectors in a rural town, such as the mining industry, tourism, health, education, pastoralists, cotton growers, grain growers, local government, Landcare, and Greening Australia. All of the people at the meeting were involved with natural resource
management in some way, with many working with or as, volunteers for a variety of organisations.

The researcher began by giving a brief overview of the whole study. Next everyone was given a copy of the model, and the table containing the guidelines (Figure 11.7 and Table 11.7). All were asked to work in pairs to discuss external factors influencing community groups, as depicted in the table and the model, and to make general comments about the model. The whole exercise took an hour and generated a lively discussion. From this feedback, minor changes were made to the model and the table. The original table and model that was presented to the group was changed to add points 18, 19 and 20 (see Table 11.5), and the model was adjusted to include these parameters as well. The general consensus was that the model was extremely useful in helping voluntary and non-voluntary groups to develop practical skills for coping with adversity and change.

This study reveals that coping strategies per se are not always enough, however, to achieve sustainability. This is also noted in the literature (eg Byron, Curtis, & Lockwood, 2001; Commonwealth of Australia 2002b; Higgins & Lockie, 2002). For example, access to sources of predictable funds, resources, and dedicated volunteers are critical to sustain community involvement in catchment management. Sporadic funding and chronic lack of resources were shown to have already adversely affected catchment volunteering. These reflections reinforce Pretty & Frank’s (2000) views that groups need a range of corporate and government support to keep going, and to influence others in their communities. They suggest that increased investment in human, social and natural capital and mechanisms have to be in place to facilitate the transition from dependent to independent citizens and community groups.

Social systems endorsing rigid control mechanisms, destroying social memory or removing mechanisms for creativity can ultimately collapse. Similarly, adhering to a paradigm in which humans are de-coupled from and dominant over nature is a major cause of system vulnerability (Folke et al, 2002). Can the adoption of a different paradigm help prevent collapse? Or as Holling & Gunderson (2002) ask:

Are there designs and actions that allow growth without increasing rigidities to the point of collapse? (p.40)
According to Folke et al (2002) collapse may be avoided through the establishment of flexible institutions that allow for networking and free exchange of information that is carefully documented and stored; a variety of approaches to problem solving; and balance power among stakeholders. Other factors that minimise vulnerability include social institutions that encourage open learning and foster ways to create memory, diversity, innovation and ecological literacy resulting in a collective view of the world (Costanza, 2000; Folke et al, 2002). These attributes increase the range of surprises that the social system can cope with and, thus, enhance the adaptive capacity of the system (Folke et al, 2002). Thus, the deliberate instigation of particular social processes can enhance the resilience and adaptive capacity of communities. In situations where arrangements are inflexible and management approaches are too narrow, vulnerability follows.

Folke et al (2002) suggest two helpful tools in predicting triggers. The first is through the use of scenarios to envision options for the future. Multiple alternatives can help to attain or avoid particular outcomes and, over time, to develop policies and actions that build resilience. The second is by applying adaptive management approaches, which view policy as a ‘set of experiments designed to reveal processes that build or sustain resilience’ (p10). Applying these tools can facilitate the appropriate social context for a sustainable future.

11.3 Final reflections
This thesis provides insights into what people experience when they volunteer for catchment groups in coastal Queensland. It helps in understanding why people volunteer, and describe some of the benefits of catchment volunteering. One major benefit is the development of resilience in individuals and groups, and this can be radiated out to the wider community. According to Deveson (2003) and Marshall (2001) resilience is an innate, self-righting mechanism found within each of us that helps us to overcome problems and adapt to changing circumstances. Deveson (2003) also maintains that resilience is enhanced through a ‘sense of belonging’. On many occasions throughout this research, volunteers welcomed new members to the group,
and worked collectively to help each other through a range of problems and issues. At the same time, they worked hard to benefit their local environment.

Reflecting upon the experiences of catchment volunteers brings to mind the description of volunteers offered by Wilkinson & Bittman (2002). These authors state that volunteers are people with compassion, caring and kindness, and that these attributes are demonstrated through daily actions and social relationships among volunteers. Resilience thrives in nurturing positive environments where friendships develop and people share visions of what can be achieved. The study reveals that resilient groups are comprised of individuals who are willing to take purposeful actions in response to social as well as environmental issues. This ‘action competence’ is developed over time through the development of self-confidence acquired through learning and networking, and the ability and willingness to remain active within the group.

The Outcome Space reflects the view that maintaining a balance in everyday life is central to all other aspects of catchment volunteering. Each conception depicted in the Outcome Space provides insights into catchment volunteering and how it contributes to resilience and sustainability in local communities. For example, the first conception, seeking and maintaining a balance is the key to contributing to a healthy civil society (Cox, 1995). The second conception, identity helps to build social communities (Bell, 1999); ecological identity (Thomashow, 1995); and a ‘sense of place’ (Carr, 2002; Relph, 1996), all of which are elements of resilient, sustainable communities. Stewardship also develops through personal and social identity with a place (Sochaczewski, 1999). A ‘sense of place’ was a strong motivator for many of the volunteers, reflecting the need for people to feel connected to their communities. Catchment volunteering might provide a counter to contemporary society where many people are increasingly disconnected from places and from nature (Milbrath, 1989; Seamon, 1996). Catchment volunteering helps people to be connected to places and communities – enhancing feelings of belonging, security, inclusion, and friendship.

The conceptions of learning and networking describe how catchment volunteers work together to solve problems through sharing knowledge, skills and experiences. They also describe experiences of volunteers that contribute to the social cohesion and
sustainability of stewardship groups. Catchment volunteering was experienced by participants as both empowering and disempowering under different circumstances. Resilient volunteers and stewardship groups are those that can overcome barriers leading to disempowerment. Strategies include persistence, hope and patience. The final conception, that of being sustainable, reveals that catchment volunteers see results of their work as something that will endure well into the future. This long-term vision is perhaps the strongest attribute of resilient, sustainable volunteering. Catchment volunteers can endure short-term setbacks and obstacles because they can see a much bigger, long-term picture. This gives them the strength to keep going under adverse conditions.

11.3.1 Strengths and weaknesses of the research

Due to practical constraints such as time and money, the research questions were limited to two aspects of the conceptual model (Figure 4.8) presented in Chapter Four. Most of the strengths and weaknesses associated with the study are derived from the research approach, and these are discussed in Chapter Five, Section 5.5. They are summarised here.

Phenomenography encourages interviewers to take a second-order perspective, yet data collection and analysis were undoubtedly influenced by the interviewer’s personal perspectives about the phenomenon of catchment volunteering. For example, phenomenography focuses on what people say, and totally disregards why people say things. This could be problematic as it is the researcher who raises the topics (ie the whats) of conversation. The data analysis includes the process of alienating quotations from their context, and this could potentially lead to mis-interpretations in the meanings of the quotations. In addition, the Outcome Space is the researcher’s personal interpretation of the relationships between the conceptions held by the participants (Saljo, 1986). In this study, these pitfalls were largely avoided as participants were given several opportunities to comment about and make changes to results as they were being analysed.

Another potential weakness of the research approach is that universal claims cannot be made about the study. However, phenomenographic studies can be a starting point
for further research. One strength of phenomenography is that it provides useful information about learning, learning outcomes and learning experiences. This is particularly helpful in this study, as results revealed that social learning helps facilitate change in both volunteers and stewardship groups. This research set out to examine ways in which volunteer experiences may contribute to sustainable, resilient stewardship groups, and this was achieved in the context of catchment volunteering in coastal Queensland. Phenomenography is an excellent tool for describing personal experiences of a group of people. This snapshot provides a clear understanding of how participants view a particular phenomenon at a particular point in time. Thus the results of this study provide a strong platform for further research.

11.3.2 Suggestions for further study

Results indicate that much important research still needs to be done in order to maximise the positive social and environmental outcomes of volunteering. Seven areas for such research may be identified. First, results of this study suggest that contemporary social issues such as depression can be relieved through volunteering, as long as a balance is maintained between volunteering and other aspects of a person’s life. Is this the case with other forms of volunteering? That is, would the same experiences and benefits be described by other types of volunteers, say for example, individuals volunteering for groups with a focus on social justice or people who volunteer for community service organisations such as ‘meals-on-wheels’?

A second area where further research is indicated stems from the finding of this study that stewardship groups provide a mechanism for individuals to feel good about themselves, and this could have positive long-term benefits for family members and other people in the wider community. This aspect of catchment volunteering links identity and empowerment (self-esteem); learning (self-confidence); and networking (connections with volunteers and others in the wider community). Does the same apply for other types of volunteering?

Third, it would be interesting to investigate whether a ‘shared vision’ that is deliberately promoted on a variety of social levels through social learning and social capital accumulation contributed to resilient, sustainable stewardship groups, communities and societies.
A fourth area of research could be conducted regarding group dynamics. Results of this study suggest that the way each group operates influences the ability and willingness of individual volunteers to remain active. A positive, inclusive group atmosphere, as well as adequate resources, helps in the effective operation of a group. So too, does having a skilled and experienced leader. Groups that keep going under pressure are more likely to retain their volunteers, as they keep a positive long-term view of their work. These implications were gleaned through individual descriptions and personal experiences of group dynamics, and reflected in the literature. More direct observations of catchment groups may corroborate these inferences. For example, does Scully & McCoy’s (2002) concept of ‘deliberative dialogue’ involving active listening, critical thinking and reasoned argument apply to groups with successful social and environmental outcomes?

Fifth, the guidelines presented in Table 11.5 could be used to develop training materials for volunteer coordinators; tertiary courses for future natural resource managers; and for agency staff employed in natural resource management. Through on-going training and support, coordinators can foster the natural capacity for resilience, common sense and wisdom found within each volunteer, and create optimal conditions for stewardship groups to be successful in their local communities. Further research is needed to develop strategies for delivering appropriate training materials based on the guidelines generated through this study.

Sixth, because catchment volunteering involves on-ground activities, a ‘sense of place’ and a view of the long-term outcomes of these activities are cultivated over time. Would other forms of volunteerism also cultivate a ‘sense of place’ and have a long-term view of volunteering in the same manner? Would cultivating a ‘sense of place’ reveal other attributes of volunteers? Being able to answer these questions may have implications for enhancing community well-being.

Although Relph (1996) convinces us of the importance of ‘place’ in terms of social connections, security and identity, he also suggests that ‘placelessness’ can have benefits such as tolerance and understanding of difference (Relph, 1996). In addition, the ‘global village’ concept connecting people in cyberspace has many benefits in terms of information exchange and sharing of ideas and experiences. These are
valuable assets for catchment volunteering. Relph suggests that using imagination in such a way that relates personal experiences of places to larger contexts may succeed in accomplishing this (Relph, 1996). The suggestion of using imagination is closely linked to the ideas of Folke et al (2002) who suggest that to build a sustainable future, groups and communities should use scenarios to envision a range of options for the future. Thus, the seventh and final suggestion for further research is to utilise elements of Tables 11.4 and 11.5, and Figure 11.7 to conduct visioning exercises for stewardship groups and their communities to develop a collective vision of sustainability, one where options for the future are kept alive. An action research approach could be adopted to see whether visioning exercises and the implementation of guidelines lead to different (and hopefully more effective) stewardship outcomes.
REFERENCES


Amalric, F. (1999) Natural resources, governance and social justice. *Development* 42(2) pp5-12


Australian Bureau of Statistics (2003b) *ABS 4617.0 Environment by Numbers: Selected Articles on Australia's Environment* Locked Bag 10, Belconnen ACT Australia

Australian Bureau of Statistics (2003c) *Year Book Australia 2003: tourism - nature-based tourism* Locked Bag 10, Belconnen ACT Australia


Bruce, C. (1992) Research Students’ conceptions of a literature review unpublished Masters thesis, Queensland University of Technology, Brisbane, Australia


groups, and community dinners *Society & Natural Resources* 14(2) pp.107-126


Fien, J. & Skoien, P. (2002) “I’m learning... how you go about stirring things up—in a consultative manner”: social capital and action competence in two community catchment groups Local Environment 7(3), pp.269-282


Lipman-Blumen, J., & Leavitt, H. J. (1999) *Hot groups: seeding them, feeding them, and using them to ignite your organisation* Oxford University Press, NY


http://www.ped.gu.se/biorn/phgraph/civil/main/1res.appr.html


Perry, J. L. & Imperial, M. T. (2001) A decade of service-related research: A map of
the field. Research note Nonprofit and Voluntary Sector Quarterly, 30(3), pp.462-479
(eds) Panarchy: understanding transformations in human and natural systems
IUCN, Gland, Switzerland & Cambridge, UK
downside of social capital. The American Prospect 7(26), May 1, 1996- June
resource management: achievements and lessons. In Proceedings,
International Landcare 2000, Melbourne, Australia, March 2nd-5th 2000
pp.178-187
Development, 23(8), pp.1247-1263
Prosser, M., & Trigwell, K. (1997) Using phenomenography in the design of
programs for teachers in Higher Education. Higher Education Research &
Development 16(1), pp.41-54
American Prospect, l.4(13) Spring, 1993, Available from:
Democracy January 1995. 6 (1), Jan 1995, pp.65-78
Community. Simon & Schuster. New York
an organisational study of volunteers in community resource centres for
children. Children and Youth Services Review. 22(8), pp.651-678
Architectural Phenomenology Newsletter 7(3), p.15
Understanding geography and environmental education: The role of research
Wellington House, London
Robertson, J. (1997) New opportunities for social inclusion through useful and
satisfying work, paid and unpaid. EU -Japan Club Symposium, 17-18
accessed on 24th May, 2001
Environmental and Health Education B.B. Jensen (ed) Research Centre for
Environmental & Health Education. The Royal Danish School of Educational
Studies
agriculture: participatory learning and adaptive management in times of
environmental uncertainty. Cambridge University Press, Cambridge, UK &
New York, New York, USA


