

**A Critical Analysis of Communicative Planning Theory as
a Theoretical Underpinning for Integrated Resource and
Environmental Management**

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**A Critical Analysis of Communicative Planning Theory as
a Theoretical Underpinning for Integrated Resource and
Environmental Management**

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Abstract

Regional natural resource management is increasingly being implemented through collaborative arrangements. Theoretically, collaborative arrangements draw together multiple stakeholders to achieve a holistic approach to management. However, there is no comprehensive underpinning theory to guide implementation. In response, the resource and environmental management literature has been dominated by the search for procedural theory. Encouraged by the history and experience the planning field has with decision-making in multi-stakeholder settings, planning theory - specifically communicative planning theory - has been encouraged as procedural theory for regional natural resource management. However, there has been limited empirical evaluation of this concept - particularly in natural resource management contexts.

The aim of this research was to identify whether communicative planning theory represented an appropriate procedural theory to guide the implementation of regional natural resource management. This research addressed this aim through a comparison of the concepts and ideas comprising communicative planning theory with the forces shaping natural resource decisions and actions in practice within a collaborative approach to natural resource management. Qualitative research techniques were used to examine, in depth, a single case study of the implementation of the National Action Plan for Salinity and Water Quality in the Condamine Catchment.

Semi-structured interviews were conducted with twenty-six stakeholders including mayors, farmers, members of non-government organisations, and representatives of State and Commonwealth agencies. The results of this research provide valuable understanding of how decisions are made and what role natural resource management objectives play within collaborative decision-making processes. This thesis builds theory relating to when, where, and if natural resource management objectives may be achieved through collaborative arrangements.

Natural resource decisions and actions within the Condamine Catchment were shaped by three key forces. Firstly, the institutional arrangements that framed the collaborative approach influenced how organisational stakeholders would interact while undertaking natural resource management. Secondly, the structure of the decision-making processes influenced how decisions were produced. Finally, the characteristics (personalities, interests, agendas, and

experience) of individual participants influenced the shape natural of resource decisions. Collectively, these forces discouraged the development of an integrated approach to natural resource management.

Under the influence of these three forces natural resource management objectives played a secondary role to political manoeuvring within decision-making processes in the Condamine Catchment. Stakeholder agendas, motivations and interests became the primary concern as stakeholders implementing the National Action Plan became focused on controlling decision-making processes, instead of focusing on implementing natural resource management itself. Stakeholder relations were characterised by conflict as stakeholders competed for control of the decision-making processes.

Communicative planning theory does not adequately identify or contend with the complex contextual forces shaping natural resource decisions within the Condamine Catchment. Nor does this concept offer clear direction on how to overcome the identified barriers to the development of an integrated approach to management. These research findings suggest that communicative planning theory does not represent an appropriate procedural theory to guide the implementation of regional natural resource management.

Collaborative models of implementation are currently gaining dominance as the preferred delivery vehicle of regional natural resource management. This research implies that instead of searching for a meta-theory to guide implementation, the resource and environmental management field may be better served by developing a theoretical framework that makes practitioners aware of, and provides the tools to address, the context sensitive barriers that exist towards implementing natural resource management within multi-stakeholder settings. This research contributes towards the development of this understanding, and the tools necessary to unlock collaborative planning practice in individual settings.

Publications From the Thesis

Murray, D. 2005. 'A Critical Analysis of Communicative Rationality as a Theoretical Underpinning for Collaborative Approaches to Integrated Resource and Environmental Management', *Environments*, 33(2), 17-34.

See Appendix A for a copy of the article.

Table of Contents

Chapter One: An Overview of the Research	1
1.1 Introduction.....	1
1.2 Definitions.....	4
1.3 Aims and objectives of the research.....	5
1.4 The Condamine Catchment.....	6
1.5 Origins of the National Action Plan.....	14
1.6 Significance of the research.....	16
1.7 Contributions of this research.....	18
1.8 Research approach.....	20
1.9 Structure of the thesis.....	22
Chapter Two: Literature: Communicative rationality and natural resource management	25
2.1 Introduction.....	25
2.2 Defining collaborative planning approaches.....	27
2.2.1 The increasing implementation of collaborative planning practice.....	29
2.3 Examining the theory underpinning collaborative planning practice	31
2.3.1 The application of Habermasian theory to planning.....	36
2.3.2 The application of communicative planning theory to natural resource management.....	39
2.4 Critiques of communicative planning theory.....	47
2.4.1 Attitudes, perceptions, and skills of participants.....	47
2.4.2 The issue of power.....	49
2.4.3 Institutional and external influences.....	51
2.5 The need for evaluation.....	55
2.5.1 Who should evaluate?.....	56
2.5.2 How should evaluation take place?.....	56
2.5.3 What should be the focus of evaluation?.....	58
2.6 An evaluative framework.....	60
2.7 Conclusion.....	69

Chapter Three: Research approach: Examining collaborative approaches to natural resource management	71
3.1 Introduction.....	71
3.2 The research paradigm.....	71
3.3 Research strategy: the case study approach.....	74
3.4 Interviews and interviewing.....	77
3.4.1 Interview design.....	79
3.4.2 Identifying participants.....	81
3.4.3 Conducting the interview.....	86
3.4.4 Ethical issues.....	88
3.4.5 Interview technique.....	89
3.4.6 Analysing the interview data.....	92
3.4.7 Discussion of experiences.....	92
3.5 Secondary data.....	94
3.6 Advantages and limitations of the research approach.....	96
3.7 Conclusion.....	98
Chapter Four: The institutional arrangements framing natural resource management in the Condamine Catchment (Analysis I)	101
4.1 Introduction.....	101
4.2 The evolution of natural resource management in Australia.....	103
4.3 The institutional arrangements of the National Action Plan.....	110
4.3.1 Substantive changes to natural resource management.....	113
4.3.2 Procedural changes to natural resource management.....	116
4.4 Natural resource management in the Condamine Catchment.....	121
4.4.1 Before the introduction of the National Action Plan.....	121
4.4.2 After the introduction of the National Action Plan.....	125
4.4.3 The structure of the Condamine Alliance.....	128
4.5 An evaluation of the institutional arrangements for natural resource management in the Condamine Catchment	131
4.5.1 What are the significant economic, social, political, cultural, and biophysical issues for the community/region? Do these issues affect natural resource management?.....	131
4.5.2 Do institutional arrangements support integrated management?.....	136
4.5.3 Are the roles and responsibilities of stakeholders clearly defined?.....	137

4.5.4 Does the mandate given to stakeholders allow adaptive management? Can the focus of the collaborative planning process change to suit emerging and changing views?.....	138
4.5.5 Do stakeholders have control over each stage of the policy cycle (e.g. design, implementation, monitoring, evaluation)?.....	140
4.5.6 Are stakeholders provided enough time to develop relationships, share perspectives, and critically examine issues before decisions have to be made?.....	142
4.5.7 Are stakeholders provided sufficient resources to implement decisions?.....	144
4.6 Conclusion.....	147

Chapter Five: Natural resource management decision-making processes, participant characteristics, and stakeholder relations in the Condamine Catchment (Analysis II) 151

5.1 Introduction.....	151
5.2 An evaluation of natural resource decision-making within Condamine Catchment under the National Action Plan	152
5.2.1 Are the interests of all key stakeholders represented in the decision-making process?.....	152
5.2.2 Are clear criteria applied when making decisions? If so, how was it developed? Does any interest hold any more weight than others?.....	154
5.2.3 Is the decision-making process open, accessible and transparent?.....	155
5.2.4 Is the decision-making process supported by clear, focused and realistic goals that are shared by all participants? Do these goals provide advantage for any particular stakeholder interest?...	156
5.2.5 Is understanding and knowledge produced through mutual enquiry and learning, or is it imposed upon stakeholders?.....	158
5.2.6 Do all stakeholders have equal access to all of the pertinent information?.....	159
5.2.7 Do decisions include the interests of wider society? Are opportunities provided for public participation in the decision-making process?.....	160
5.2.8 Are temporal (e.g. a timeline for enacting change) as well as spatial boundaries defined? How do these boundaries affect decision-making?.....	161
5.2.9 How are decisions reached? Are any stakeholders marginalised from the decision-making process?.....	163
5.3 An evaluation of the influence of the characteristics of individual participants.....	164

5.3.1 Do all stakeholders possess the skills, capacity or experience to contribute to resource policy development?.....	164
5.3.2 Are all stakeholders committed to work in collaboration with others?.....	166
5.3.3 Do all stakeholders support and facilitate the collaborative decision-making process?.....	168
5.3.4 Do stakeholders communicate/interact with each other in an open and honest manner? Do the stakeholders demonstrate respect and trust for each other?.....	171
5.4 Natural resource management decision-making within the Condamine Catchment under the National Action Plan.....	183
5.5 Conclusion.....	184
Chapter Six: Discussion of Findings: The Condamine Catchment, IREM and communicative planning theory	187
6.1 Introduction.....	187
6.2 Lessons from the Condamine Catchment.....	188
6.3 Toward an integrated management approach within the Condamine Catchment.....	194
6.4 IREM and communicative planning theory: Theory versus practice	197
6.5 Conclusion.....	204
Chapter Seven: Conclusions	207
7.1 Introduction.....	207
7.2 A synthesis of the Condamine Catchment natural resource management context.....	208
7.3 IREM and collaborative planning theory.....	211
7.4 Contributions of the research, limitations and recommendations for further research	213
7.5 Final reflections	217
Bibliography	219

List of Figures

Figure 1.1: Condamine Catchment locality map.....	2
Figure 1.2: Conceptual framework for the thesis.....	7
Figure 1.3: The Condamine Catchment land use map.....	8
Figure 1.4: The Condamine Catchment showing local government boundaries.....	9
Figure 2.1: Coordination required for a holistic approach to natural resource policy implementation.....	52
Figure 2.2: Relationship between the key forces shaping collaborative natural resource management decisions and outcomes.....	61
Figure 2.3: IREM is a balance between centrifugal and centripetal forces.....	63
Figure 2.4 Evaluative criteria conceptual diagram: Understanding the forces shaping decisions and outcomes from collaborative planning practice (drawn from table 2.4).....	68
Figure 4.1: Implementation arrangements for the National Action Plan demonstrating the hierarchy of implementation agreements.	112
Figure 4.2: The process for developing a Regional NRM Plan.....	117
Figure 4.3: Hierarchy of natural resource management organisational stakeholders and their member organisations.....	118
Figure 6.1: The shaping of natural resource management decisions under collaborative arrangements.....	189
Figure 6.2: Relationship between the forces necessary to encourage IREM within the Condamine Catchment	198

List of Tables

Table 2.1: Characteristics of collaborative planning approaches and traditional participatory planning.....	28
Table 2.2: Dominant themes used to define integrated approaches to natural resource management.....	40
Table 2.3: Tracing the recent development of communicative planning theory in the planning and the natural resource management literature.....	46
Table 2.4: Indicators of IREM and the questions necessary to identify their presence/absence.....	64
Table 3.1: List of participants and the position they hold within the natural resource management network.....	83
Table 3.2: Meetings attended.....	96
Table 4.1: Commonwealth, State and local government planning processes potentially operating within each region.....	115
Table 4.2: Organisational stakeholders and the role that they play in natural resource management in the Condamine Catchment..	123
Table 4.3: Organisational stakeholders and their representatives on the Condamine Alliance.....	130
Table 6.1: Summary of the centripetal and centrifugal forces for IREM within the Condamine Catchment.....	200

List of Appendices

Appendix A. <i>Environments</i> Journal Article	237
Appendix B. Synthesis of attempts to evaluate collaborative approaches	267
Appendix C. Sample interview questions.....	273
Appendix D. Schedule of interviews.....	277
Appendix E.	
1) Letter of introduction.....	281
2) Consent form.....	285

List of Abbreviations and Acronyms

COAG	Council of Australian Governments
EDROC	Eastern Downs Regional Organisation of Councils
EDRPAC	Eastern Downs Regional Planning Advisory Committee
IREM	Integrated Resource and Environmental Management
NRM	Natural Resource Management
Qld	Queensland

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To my supervisors, Dr Dianne Dredge, Prof. Lex Brown, and Dr. Darryl Low Choy, I offer my thanks and appreciation for your guidance in the development of this thesis. I thank the School of Environmental Planning, Griffith University, for all their support, wisdom, and education. To my parents, I offer my thanks for the opportunities and encouragement you have provided. Finally, I extend my appreciation to my friends and loved ones for all the support you have provided.

Declaration

I declare that this work has not previously been submitted for a degree or a 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.

.....

Daniel James Murray

July 12, 2006

Chapter One

An overview of the research

1.1 Introduction

Over the past 150 years the catchment of the Condamine River in southwest Queensland has undergone dramatic changes. Once a landscape characterised by natural open grasslands framed by forested mountain ranges, the Condamine Catchment now represents one of Australia's most productive agricultural centres. Modification of the natural environment has brought significant economic prosperity, but it has also brought degradation of the region's natural resources. The result has been the emergence of environmental problems, such as a decline in water quality and reliability, and rising concerns about salinity (Murray-Darling Basin Ministerial Council, 1999: 33).

This phenomenon is by no means endemic to the Condamine Catchment. It is, in fact, common to many agricultural districts in Australia. However, the highly developed area of the Murray-Darling Basin, of which the Condamine River forms the headwaters (see Figure 1.1), has been particularly subject to these changes (Murray-Darling Ministerial Council, 1999). Much of the Australian landscape is characterised by a soil profile high in salt and subject to harsh climatic conditions. While these conditions have been factors that have contributed to resource degradation, they represent a natural part of Australia's environment. It has been the application of land management and agricultural production systems unsuited to these environmental conditions that have been the source of continuing resource degradation (Murray-Darling Basin Ministerial Council 1999; 2001).

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copy of the thesis held in Griffith
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Figure 1.1: Condamine Catchment locality map
(Condamine Alliance, 2004: www.cris.org.au)

Increasingly, both State and Commonwealth governments in Australia recognised that land management practices have played a significant role in the degradation of the country's natural resources (see Murray-Darling Basin Ministerial Council, 1999; 2001; Commonwealth Department of Agriculture, Forestry and Fisheries – Australia, 2000). This recognition, coupled with concerns over the long-term consequences of this degradation for future productivity and economic output (see Murray-Darling Basin Ministerial Council, 1999; Commonwealth Department of Agriculture, Forestry and Fisheries – Australia, 2000), has encouraged the Commonwealth Government of Australia (the Commonwealth) to develop and implement a new approach to salinity and water quality management in Australia. This approach has been termed *The National Action Plan for Salinity and Water Quality* (the National Action Plan).

The underlying philosophy of the National Action Plan is grounded in a discussion paper released in December 1999 by the Commonwealth Department of Agriculture, Forestry and Fisheries, entitled *Managing Natural Resources in Rural Australia for a Sustainable Future*. This discussion paper provided the basis for both the Commonwealth and State governments to formulate and implement resource and environmental policies focused on establishing collaborative approaches to management.

This policy framework has been translated into action numerous times, including the development of partnership agreements between Commonwealth and State governments and regional communities to address issues such as forestry management (through Regional Forestry Agreements; see Brown, 2002), rural land management (through Natural Heritage Trust Funding; see Crowley, 2001) and, most recently, salinity and water quality (through the National Action Plan; see Scanlon, 2001). The National Action Plan is a program specifically targeted at addressing salinity and water quality issues in the most affected and at risk regions in Australia (Commonwealth Department of Agriculture, Forestry and Fisheries – Australia, 2000). The Condamine Catchment is one such region.

Embedded within the rhetoric surrounding the National Action Plan is a pledge to implement a holistic (or integrated) approach to natural resource management. To encourage a holistic approach the Commonwealth has altered the way resource management decisions are made. In the foreword to the

National Action Plan, the Council of Australian Governments (COAG)¹ state that under the program '[a]ll levels of government, community groups, individual land managers and local businesses will work together to tackle salinity and improve water quality' (Commonwealth Department of Agriculture, Forestry and Fisheries 2000 – Australia, 2000: 3). The National Action Plan represents a commitment by the Commonwealth to implement natural resource management through collaborative arrangements. To improve understanding of the opportunities and limitations of collaborative approaches in natural resource management contexts, and the potential of these approaches to achieve natural resource management objectives, this research represents an in-depth investigation into the implementation of the National Action Plan in the Condamine Catchment.

1.2 Definitions

To clarify the scope of this research it is necessary to define some of the key terms used in this thesis. “**Integrated Resource and Environmental Management (IREM)**” is a concept from the natural resource management literature that promotes integrated (or holistic) management of natural resources. Embedded within this concept are a number of substantive objectives that advance integrated management (see Sec. 2.3.2). Collaborative planning practice has been advanced in some quarters of the natural resource management literature as a procedural approach to advance these substantive objectives.

“**Collaborative planning practice**” describes an approach to decision-making where a number of stakeholders come together and invest resources in a joint approach to making and implementing decisions. “**Communicative planning theory**” refers to the dominant procedural theory currently underpinning collaborative planning practice within the planning literature. For a more detailed discussion of these definitions see section 2.2. This thesis does not assume that communicative planning theory is the only procedural theory vying for recognition as the most appropriate to underpin collaborative planning practice. Nor does it assume that this theory is the only one being advanced to underpin

¹ COAG is the peak intergovernmental forum in Australia. Its role is to initiate, develop, and monitor the implementation of policy reforms that are of national significance and which require cooperative action by Australian governments. COAG comprises the Prime Minister, State Premiers, Territory Chief Ministers, and the President of the Australian Local Government Association (Council of Australian Governments, 2004: www.coag.gov.au/about.htm).

the implementation of IREM. Communicative planning theory remains the focus of this thesis because it represents the current dominant planning paradigm and it is increasingly being discussed and advocated as a basis for procedural theory in the natural resource management literature.

The term “**stakeholder**” is practically defined as an organisation (termed an organisational stakeholder) or an individual (termed individual stakeholder) who has a direct interest, or is engaged in, the decision-making processes of the National Action Plan as it is being implemented within the Condamine Catchment. The term “**institutional arrangements**” refers to the legislation, policy framework, and formal and informal rules both at the State, Commonwealth and regional level that govern the way natural resource management is implemented within the Condamine Catchment. These definitions are consistent with the planning and natural resource management literature. Collectively they describe the scope and boundaries of the study.

1.3 Aims and objectives of the research

The aim of this research is to answer the question: **Does communicative planning theory represent an appropriate procedural theory for Integrated Resource and Environmental Management?**

This research addresses this question through a case study analysis of the implementation of the National Action Plan within the Condamine Catchment. The focus of this research is on the procedural aspects of natural resource management implementation. This research critically analyses the decision-making processes of the National Action Plan within the Condamine Catchment through an analysis of the way that stakeholders act, react, and interact within a collaborative approach. This research offers insights into the opportunities and limitations of implementing regional natural resource management through collaborative arrangements.

To answer the research question four research objectives provide guidance in the development of the research:

- 1) To explore the concepts of IREM and communicative planning theory within the literature with a view to understanding how communicative planning theory has come to be proposed as procedural theory to guide the implementation of IREM;

- 2) To develop a set of criteria that evaluates whether IREM objectives are being pursued within a collaborative approach to natural resource management;
- 3) To develop a research approach that applies the above criteria to identify, explain and evaluate natural resource management under the National Action Plan in the Condamine Catchment;
- 4) To evaluate whether the implementation of the collaborative approach to natural resource management initiated by the National Action Plan encourages the achievement of IREM objectives in the Condamine Catchment; and
- 5) To evaluate whether communicative planning theory, as the dominant procedural theory underpinning collaborative planning practice, adequately explains/predicts stakeholder relations, decisions and actions within the Condamine Catchment and offers direction to move further toward an integrated approach to management.

These research objectives and their relationship to the development of this thesis are presented diagrammatically in Figure 1.2.

1.4 The Condamine Catchment

The Condamine River is located in southwest Queensland. Beginning as the run-off from the western slopes of the Great Dividing Range the Condamine River flows inland in a north-west direction until it joins the Balonne River, which in turn flows into the Darling River to the south. The Condamine River forms the headwaters of the most productive agricultural region of Australia, the Murray-Darling Basin (Condamine Catchment Management Association, 2001).

The catchment of the Condamine River (the Condamine Catchment) covers an area of some 29,150 km², and is home to 170,000 people (Condamine Catchment Management Association, 2001). The catchment contains some of the most fertile soils in the world, and itself is one of the most productive agricultural areas in Australia (Condamine Catchment Management Association, 2001). As such, the Condamine Catchment contains a diverse array of land uses, as detailed in Figure 1.3. Twelve local governments have local government boundaries that fall (wholly or in part) within the Condamine Catchment (see Figure 1.4).

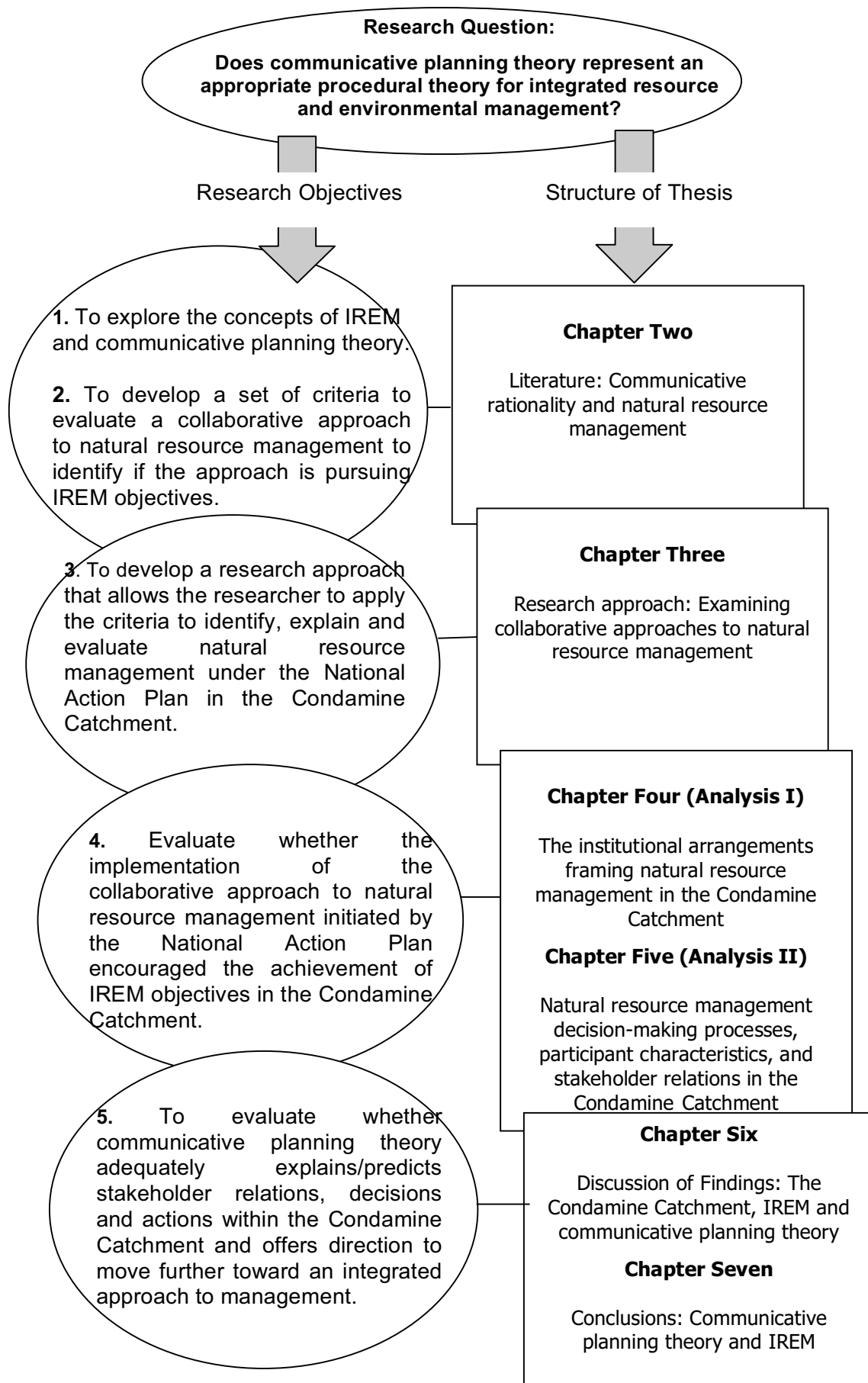


Figure 1.2: Conceptual framework for the thesis

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Figure 1.3: The Condamine Catchment land use map
(Condamine Alliance, 2004: www.cris.org.au)

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Figure 1.4: The Condamine Catchment showing local government boundaries
(Condamine Alliance, 2004: www.cris.org.au)

A detailed description of the natural landscape of the Condamine Catchment is provided by French (1989: 1-2). French identifies that the natural environment of the Condamine Catchment is dominated by what is called the Darling Downs, a 50 km wide corridor of fertile grassland that extends along the floodplain of the Condamine River. The Darling Downs are described by French (1989: 1) as being bounded by the Bunya Mountains to the north, the Main Range to the east, and Granite Belt and Herries Range to the south, while to the west they gradually slope away into the plains of the Australian outback. It is the biophysical characteristics of the Condamine Catchment that have resulted in the establishment of this wide tract of natural grassland:

The Condamine River drops only 140 metres in its 250 kilometre meander across the Downs. It thus forms an extensive floodplain of deep black alluvial soil, some fifty kilometres wide, with intermittently-flowing streams and permanent ponds or waterholes. This alluvial soil swells when saturated with rain, but shrinks and cracks when dry: It cannot therefore support large trees such as the eucalypt but rather nurtures low-growing acacia and prolific grass... (French, 1989: 1-2)

These biophysical attributes have ensured that the Condamine Catchment has become a successful agricultural region. The major agricultural outputs of the region include crops (grain, cotton, vegetables, and crops for the production of vegetable oil) and intensive livestock industries (piggeries, cattle feedlots, dairy farms, and poultry establishments) (Condamine Catchment Management Association, 2001; Taylor & Meecham, 2001).

The development of the region as an agricultural centre has influenced the way natural resources in the area have been managed. Since the time of white settlement land management practices have been focused on modifying the natural environment to promote agricultural production. Not only did these management practices alter the natural landscape, they were also in direct conflict with traditional aboriginal land management practices and their very way-of-life. The result has been the production of a landscape that is very different than the one that existed prior to white settlement, only 150 years ago.

What is now known as the Condamine Catchment was home to at least four Aboriginal tribes prior to white settlement in the region (Tindale, 1974). Unfortunately, not much is known about the indigenous tribes of the area as, within a decade of white settlement, indigenous society in the Condamine

Catchment had been systematically broken down (French, 1989; Dansie, 1985). However, a physical description of what the environment looked like at that time can be reconstructed by reviewing the rich descriptions of the landscape of the headwaters of the Condamine River provided by the first white men to cross the Main Range (as reported by Dansie, 1985: 15):

Initially the area was a vast tree filled basin, the eastern and southern rims thick with huge trees. They are the vanguard of a great forest, extending down to the bottom of the shallow valley where it fringed two swampy creeks. The two creeks joined almost in the centre of the basin, and between them lay a low ridge which rose gently southwards to merge with the southern rim. This ridge too was covered with enormous trees and thick vegetation – box ironbark, stringybark, and gums of various kinds. Further west the ground rose towards the western rim, there the forest was not as thick. The swamps that surrounded the creeks were thick, green and oozy, but their presence promised unlimited water, and the vegetation suggested excellent soil and abundant timber.

The environment and indigenous society of the area changed dramatically in the years following the "discovery" of the Condamine Catchment by white settlers. The swampy area described above, now the site of the city of Toowoomba, was surveyed in 1852 and settled shortly after (Dansie, 1985). Toowoomba became the commercial centre of the agricultural industry and thrived as the high quality soils and good pasture land of the bordering Darling Downs drew settlers to the area (Dansie, 1985; French, 1989). The influx of white settlers to the region had two main consequences: it modified the environment dramatically and drove the original indigenous inhabitants to the verge of extinction. The speed in which this occurred is described by Dansie (1985: 33):

It is indisputable that within a decade of the arrival of the white man on the Darling Downs as a settler, the tribal structure and culture of Aboriginal society in the region were completely destroyed. The tribe's traditional hunting grounds and waterholes were denied to them, and the tribes themselves were dispersed and on the verge of extinction.

While the devastation of indigenous society and culture were the immediate effects of white settlement in the Condamine Catchment, there were other impacts that took much longer to become apparent. The long-term consequences of over a century of exploitation of the environment eventually presented themselves as natural resource problems, such as the degradation of

much of the flora and fauna conservation values (Condamine Catchment Management Association, 2001), soil erosion, inconsistent availability of water, declining water quality and, most recently, outbreaks of salinity (Murray-Darling Basin Ministerial Council, 1999; pers. comm., participant D)².

Concern over the impact these natural resource issues may have on future productivity levels and the current way-of-life in the catchment have encouraged the State and Federal governments to recognise the catchment as a region requiring priority action under the National Action Plan. The National Action Plan aims to address natural resource issues through the development of a collaborative approach to natural resource management, combining the efforts of the Commonwealth, State government, and a regional organisation of community-based stakeholders.

The Condamine Catchment was selected as a case study to evaluate collaborative planning practice because it is characterised by rich history of stakeholder interactions and there is some documented institutional history. The catchment is typical of many regions in that it contains a diversity of stakeholders involved in natural resource management. Enclosed, in part or full, within the natural boundaries of the Condamine Catchment are twelve local government areas. The catchment is also home to a strong agricultural sector, conservation groups, community-based farming groups, and organisations concerned with promoting development and economic growth in the region. These attributes ensure that stakeholders, the interests they represent and the conflicts that emerge are somewhat representative of other agricultural regions.

The Condamine Catchment can be described as an atypical example of agricultural regions in Australia for four main reasons. Firstly, the catchment has a long history of collective approaches to address natural resource issues such as soil conservation (see section 4.6). Secondly, the region currently has a strong community-based natural resource management framework dominated by an established Landcare sector and catchment management association (see section 4.6). Thirdly, the boundaries of the local governments located within the catchment closely coincide with the natural boundaries of the catchment (a situation particularly unique in Queensland).

² Individual quotations and contributions from participants in this research are not personally identified due to confidentiality agreements (see section 3.4.4 for more detail).

Finally, the recent history of the catchment has been characterised by a growing commitment to planning and management at the regional scale. This commitment is demonstrated by the development of the Eastern Downs Regional Organisation of Councils (EDROC)³ and the Eastern Downs Regional Planning Advisory Committee (EDRPAC)⁴, both examples of conglomerations of local governments adopting a collective, and regional, approach to planning. A further example is the development of the Queensland Murray-Darling Committee, a non-government organisation that aims to encourage and facilitate a basin-wide approach to natural resource management centred on the development of coordinated catchment-based management approaches.

This historical commitment to collectively addressing natural resource issues sets the Condamine Catchment apart from other regions. For this reason, the region was selected as a case study. The researcher hoped that this history of collective action would provide a foundation of (relatively) stable stakeholder relationships, on which the implementation of the National Action Plan could be evaluated. However, as the research progressed the researcher discovered this was not to be the case. Stakeholders reacted to the introduction of the National Action Plan in different and sometimes unexpected ways. While this created a dynamic environment in which to undertake research, it did provide valuable and previously unrecorded insights.

Historically, collaborative approaches to resource management have operated within traditional institutional arrangements where government agencies have demonstrated considerable control over policy development and implementation. That is, government agencies have engaged in consultation and have fostered working relationships with key stakeholders, but policy making was very much based on 'command and control' management by government. Stakeholders' roles, responsibilities and participation was controlled by government agencies. Collective action relied on voluntary cooperation and remained fragmented. Participation was were ad hoc and there was little power outside government to initiate change. These institutional

³ EDROC is a conglomeration of local governments located at the eastern end of the Darling Downs. It is a forum for its members to develop and implement solutions for matters of regional significance (for a more detailed description see section 4.6).

⁴ EDRPAC is a conglomeration of ten local governments encompassing all of the case study areas. The purpose of this organisation is to identify and undertake regional planning for issues of regional significance. EDRPAC is recognised by the Queensland Department of Local Government & Planning as the peak body in the region for regional planning (for a more detailed description see section 4.6)

arrangements may work when addressing specific issues that enjoy broad-scale support, but limit the opportunity to address more difficult or controversial issues. The National Action Plan introduces institutional arrangements that attempt to encourage a more collaborative and holistic approach to natural resource management.

In introducing new institutional arrangements for resource management the National Action Plan has altered the funding arrangements, the existing landscapes of power and influence, and stakeholder relationships that previously existed. The Condamine Catchment offers an opportunity to identify how stakeholders react to the introduction of a collaborative approach to natural resource management, to identify the key forces that shape the way in which decisions are made and to evaluate whether IREM objectives are being pursued.

1.5 Origins of the National Action Plan

For some decades knowledge and concern over the scale and nature of the salinity problem in Australia have been growing. Rises in salinity levels are associated with a number of negative ecological, social, and economic impacts. Ecological impacts include a loss of water quality and environmental values for terrestrial, river and wetland habitats, while social and economic impacts relate to increasing damage to land and built infrastructure as well as declining farm production (Murray-Darling Basin Ministerial Council, 1999).

The rise of, and difficulty in addressing, salinity in Australia is best described by the Murray-Darling Basin Ministerial Council (1999: 1), who identify the increasing salinity levels as being 'symptomatic of current land uses, which have taken the place of natural systems, resulting in a massive hydrological imbalance that will take up to several hundred years to stabilise'. Earlier attempts at addressing salinity (e.g. the Salinity and Drainage Strategy) have relied on engineering or technical responses such as the construction of salt interception schemes (Murray-Darling Basin Ministerial Council, 1999). However, technical responses alone will not be able to arrest the spread of salinity. Broad-scale changes in land use and farm production systems are needed, and can only be achieved by engaging with and overcoming the social and economic impediments to achieving them (Davidson, 2002; Murray-Darling Basin Ministerial Council, 1999).

If there were any doubts over the immediate need to act in addressing salinity they were put to rest in 1999, when the Murray-Darling Basin Ministerial Council published *The Salinity Audit of the Murray-Darling Basin*. One of the most sobering and widely reported outcomes of the audit has been that the average salinity of the lower River Murray will exceed the threshold for desirable drinking water in the next 50-100 years (Murray-Darling Basin Ministerial Council, 1999: 12). In terms of economic impact, the predicted impact of saline water for Murray River users alone is currently estimated at \$46.2 million per year (Murray-Darling Basin Ministerial Council, 1999: 22). In comparison to the predicted future costs of dryland salinity, this figure appears relatively small:

[O]ne way of estimating the likely future magnitude of impact costs is to adopt the \$1 million in costs for every 5000 hectares visibly affected as a rule of thumb. If it is assumed that up to five million hectares will become visibly affected by salinity by 2100, this coarse analysis suggests that Basin-wide impact costs could total about \$1 billion per year by that time (Murray-Darling Basin Ministerial Council, 1999: 23).

In October 2000, the Federal government released the *National Action Plan for Salinity and Water Quality* (the National Action Plan), its response to address the issue of salinity across Australia (see Commonwealth Department of Agriculture, Forestry and Fisheries – Australia, 2000). The National Action Plan represents a \$1.4 Billion investment in natural resource management, half of which is contributed by the Commonwealth government and half by the State governments. The stated goal of the National Action Plan is to motivate and enable regional communities to use coordinated and targeted action to:

- Prevent, stabilise and reverse trends in dryland salinity affecting the sustainability of production, the conservation of biological diversity and the viability of our infrastructure; and,
- Improve water quality and secure reliable allocations for human uses, industry and the environment.

(Commonwealth Department of Agriculture, Fisheries and Forestry – Australia 2000: 2)

To achieve these goals, the National Action Plan recognises the need to address the difficult issues of land-use change, farming techniques, and increasing the availability of water in our rivers for environmental purposes. The Commonwealth reasoned that to identify and implement these changes a regional approach based on partnerships between government and community

stakeholders was required. As a result, the National Action Plan prescribed the development of regional organisations, called Regional Natural Resource Management Bodies (Regional NRM Bodies). These Regional NRM Bodies, made up predominantly of community members, are responsible for the development and implementation of natural resource management plans developed specifically for their region (termed Regional NRM Plans under the National Action Plan). This approach, which seeks to make communities of stakeholders more responsible for land and resource management, is consistent with neo-liberal philosophies increasingly applied to the resource sector in the Western world (Lyster, 2002; Bishop & Davis, 2001; Keating & Weller, 2001, Painter 1998b).

In line with these broader policy commitments, the National Action Plan has introduced changes to the institutional arrangements governing the implementation of natural resource management. These changes include:

- expansion of the Federal governments policy interest in setting broad direction natural resource management (extending its interests into policy areas traditionally considered to be the States' policy domain);
- a commitment to a multi-stakeholder and regional approach to delivery; and,
- the devolution of responsibility for the development and implementation of management activities to community-based organisations (the Regional NRM Bodies).

One of the key changes has been the establishment of the community-based Regional NRM Body. Within the Condamine Catchment a number of affected stakeholder organisations have come together to form the Regional NRM Body, which they have named the Condamine Alliance. A collaborative approach to natural resource management would see the Condamine Alliance working in partnership with other stakeholders, including government and the wider community. Instead, the implementation of the National Action Plan has been characterised by conflict and competition brought about by power struggles between a variety of stakeholder organisations.

1.6 Significance of the research

Cooperative and coordinated approaches to natural resource management have a long history, going back over seventy years (Mitchell, 1986). The theory

underpinning these approaches has continually been evolving, but has never coalesced into clear procedural theory to guide implementation. In response, the concept of IREM has emerged in the literature. Proponents of this concept seek to improve the implementation of regional natural resource management through the development of a unified theory detailing the substantive objectives of resource management plans and the process by which they should be developed (see Born & Sonzogni, 1995; Margerum & Born, 1995; Margerum, 1997; Mitchell, 1997).

Some proponents of IREM, in line with recent trends in the planning literature, advocate collaboration as the procedural means to achieve integrated approaches to natural resource management (e.g. Born & Sonzogni, 1995; Margerum & Born, 1995; Margerum, 1997). For the procedural theory to underpin collaborative approaches to natural resource management a number of authors (e.g. Slocombe, 1993a; Margerum, 1997; Selin & Chavez 1995) have advocated turning to the planning literature for guidance, citing the history and experience the planning field has with decision-making in multi-stakeholder settings.

Within the planning literature the dominant theory underpinning collaborative planning approaches is communicative planning theory. The dominance of this theory has encouraged a number of authors to advocate its application as the basis for procedural theory to underpin regional natural resource management (see Frame, Gunton & Day, 2004; Gunton & Day, 2003; McCool & Patterson, 2003; Moote, McClaran & Chickering, 1997). Gunton & Day (2003: 15) have even stated that this approach to planning 'is now formally adopted as a preferred planning model in forest and land use planning, watershed planning, regulatory rule-making, and urban planning in the United States, Canada, and Australia'.

Proponents of communicative planning theory argue planning practice structured around this theory encourages a transition toward a collaborative (and more democratic) form of decision-making (e.g. Forester, 1989; Innes, 1995; Healey, 1992; 1997; Innes & Booher, 1999). An approach to planning and decision-making based on communicative planning theory is predicted to result in many benefits, including the ability to:

- develop outcomes through collectively defined criteria (Forester, 1989; Sager, 1994);

- promote mutual learning and personal growth from participants (Sager, 1994; Healey, 1992; 1997);
- generate wider agreement over solutions (Innes & Booher, 1999); and,
- result in higher quality outcomes (Innes & Booher, 1999).

Originally conceptualised by the critical theorist Habermas (1984), and developed by planning theorists Forester (1989), Healey (1992; 1997) and Innes (1995), communicative planning theory represents a theory of decision-making. The central theme of communicative planning theory is that a relationship or bond can be formed between different stakeholder interest groups by encouraging stakeholders to engage in negotiation, debate, argumentation, and sharing of life histories and common experiences (see Sager, 1994; Healey, 1997; Innes & Booher, 1999) (for a more detailed description see section 2.3). This bond or sense of collective identity is proposed to encourage mutual learning, joint problem construction, and stimulate stakeholders to make decisions and alter behaviour to pursue collective, rather than individual, goals.

Collaborative planning practice is being implemented in natural resource management settings without an in-depth evaluation of the opportunities and limitations they present. Similarly, communicative planning theory is being advanced as procedural theory to underpin collaborative approaches without investigation into whether this theory is appropriate for regional natural resource management. Within the literature there is increasing recognition that evaluation of collaborative planning in IREM is required (see Conley & Moote, 2003, Moore & Koontz, 2003; Buchy & Race, 2001; Bellamy, McDonald, Syme & Butterworth, 1999). This research targets this gap in the literature.

1.7 Contributions of the research

The most significant gap in the literature is the absence of empirical evaluations of collaborative planning practice, particularly in natural resource management contexts. There is limited information on which to determine whether communicative planning theory is appropriate to guide the implementation of regional natural resource management. While limited evaluation has taken place, case study descriptions of collaborative approaches to natural resource management provide a depth of information on the opportunities and limitations presented by such an approach. Notable examples include McGuirk (2001),

MacKenzie (1997), Gibson & Koontz (1998), Moote, McClaran & Chickering (1997) and Buchy & Race (2001), among others.

However, these descriptions have not been based on clear evaluative criteria nor do they include a critical analysis of the stakeholder relations or the context within which the collaborative approach was introduced. As a consequence these case studies cannot easily be compared, making it difficult to determine the key influences that shape natural resource management decisions and outcomes. A descriptive rather than an analytical approach has also meant that there is no evaluative frameworks emerging from the literature that can be used to assess collaborative planning in IREM contexts. Calls for the development of evaluative frameworks are increasing (see Innes & Booher, 1999; Conley & Moote, 2003; Margerum, 1999b).

Some notable attempts to develop evaluative frameworks include work by Innes & Booher (1999), Conley & Moote (2003), and Frame, Gundun & Day (2004). However, the contribution of these works has been largely theoretical and have resulted in an absence of rich analytical evaluations of actual examples of collaborative approaches to natural resource management. Typically, the research that has been undertaken is largely survey-based, resulting in a “snapshot” of current relationships (e.g. Margerum, 1999a; Carr, Selin & Schuett, 1998; Lachapelle, McCool, & Patterson, 2003). This type of research comes at the expense of in-depth investigations into decision-making processes, stakeholder relationships, and the key influences that shape them. Even Selin and Chavez (1995: 194), who arguably introduced communicative planning theory into the natural resource management literature, identified that interpretive case studies based on longitudinal research designs were necessary to determine the effect and future role collaborative processes have in natural resource management contexts.

Research into the implementation of the National Action Plan in the Condamine Catchment offers four main contributions. Firstly, this research develops an evaluative framework that interrogates the key forces that shape decisions within collaborative approaches to natural resource management. Secondly, this research provides much needed empirical research into whether collaborative planning practice advances substantive IREM objectives. Thirdly, this research extends existing theory relating to the opportunities and limitations of collaborative approaches in addressing regional natural resource management.

Finally, this research examines communicative planning theory to determine whether it represents an adequate procedural theory for regional natural resource management.

1.8 Research approach

The research approach adopted in this thesis of empirical inquiry is influenced by a number of factors, including: the nature of the research, the characteristics of the phenomena being studied and, invariably, the values, perceptions, and experiences of the researcher (Denzin & Lincoln, 1998). It is therefore appropriate to expose the researcher's values and interests so that the reader may better understand how these characteristics may have influenced choices made within the research process and ultimately how they might have shaped the research results. A brief overview is provided here, with more detailed discussion in Chapter Three (Section 3.2).

The researcher has a Bachelor's degree in Environmental Planning with a specialisation in ecology. This background has sparked a particular interest in natural resource management. In undertaking an evaluation of a collaborative approach to natural resource management, this researcher draws from his theoretical grounding in the field of planning. This background has provided the researcher a particular advantage in undertaking research on this topic, as the theory underpinning collaborative planning practice is drawn directly from the planning literature and relates to interactions taking place within the *processes* of decision-making. Critically analysing decision-making processes is an aspect that has not received as much attention in the resource and environmental management literature (Slocombe, 1993a; Margerum & Born, 1995; Born & Sonzogni, 1995).

In essence, this dissertation represents the development of grounded theory (see Glaser & Strauss, 1967). Through an examination of collaborative planning practice this research builds theory relating to three key issues. Firstly, this research identifies the key forces shaping resource management decisions under collaborative approaches to management. Secondly, this research examines whether collaborative planning practice advances the substantive objectives of IREM. Finally, through a critique of communicative planning theory and its application to natural resource management contexts, this research extends existing natural resource management procedural theory.

The focus of this research necessitates the collection of information including that relating to the historical and current stakeholder relations, and the perspectives, interests, and experiences of individual stakeholders that shape resource management decisions. The in-depth and personal nature of much of this information requires a research strategy that allows the researcher to engage with individual stakeholders, move past the rhetoric and uncover underlying influences, beliefs, and actions that shape decisions.

The nature of this information requires the development of trust between the stakeholders within the Condamine Catchment and the researcher. To achieve these aims, the research strategy that has been adopted is a case study approach. Adopting a case study strategy allows the researcher to become engaged within the case study and to develop a rapport and trust with participants. A case study approach can gain access, insights, and information that may not be otherwise available through other research strategies (Hartley, 1994; Yin, 1984).

The multi-method research techniques used in this case study include in-depth semi-structured interviews as the primary data collection technique. Secondary data collection techniques include participant observation, the analysis of documents and reports produced by the organisational stakeholders, parliamentary debates, and a review of the relevant theoretical and empirical literature. The in-depth interviews provide the opportunity to determine stakeholder perceptions, interests and their current and historical views of decision-making within the Condamine Catchment. Participant observation provides the opportunity to identify how these perspectives are expressed within stakeholder actions and inactions.

The overall research approach adopted within this study is post-positivist in nature (see Lincoln & Guba, 2000). While it is acknowledged that individuals are constantly reconstructing their view of reality, the adoption of multiple methods of data collection and the comparison of shared events assist the researcher in developing a triangulated account of events. For example, participant observation provides the opportunity to compare statements to behaviour, allowing the researcher to evaluate the accuracy of the description of current stakeholder relations obtained through the interviews. The secondary data collection techniques provide the opportunity to compare the rhetoric, or publicly stated position, of the stakeholder organisations with the perspectives and

behaviour of the individual stakeholders that represent them. The research approach, its advantages and disadvantages, are discussed in more depth in Chapter Three.

1.9 Structure of the thesis

In order to address the aims and objectives of this research, this dissertation is structured in the following way: Following on from this introduction, **Chapter Two** reviews both the planning and the resource and environmental management literature. This chapter traces the development of communicative planning theory and its application to natural resource management. This chapter closes with the development of the evaluative framework used to analyse resource management within the Condamine Catchment and evaluate whether the collaborative planning approach initiated by the National Action Plan encouraged IREM.

In **Chapter Three** the research approach adopted in this study is described. This chapter describes the research strategy, it explores the strengths and weaknesses of the data collection and research techniques used, and presents the contributions and limitations of the research.

In **Chapter Four** (analysis I) the institutional and political environment within which the National Action Plan was developed is investigated. This chapter provides an analysis of how this context influenced the design of the National Action Plan and natural resource policy, and whether these institutional arrangements have encouraged and integrated approach to natural resource management in the Condamine Catchment.

Chapter Five (analysis II) critically analyses how decision-making processes, and the characteristics of the stakeholders involved within these processes, have shaped resource management decisions within the Condamine Catchment following the introduction of the National Action Plan. Conclusions are drawn as to whether the shape of the decision-making processes and the characteristics of participants encouraged an integrated approach to resource management.

Chapter Six combines the analysis conducted in Chapters Four and Five with the key findings of the literature review. This chapter draws conclusions identifying the opportunities and limitations of the collaborative approach to natural resource management implemented in the Condamine Catchment.

Chapter Six also identifies theoretical and practical implications of the findings for collaborative approaches to regional natural resource management, including the role of communicative planning theory as procedural theory.

Chapter Seven presents the main conclusions from the research, highlights the contributions the research makes, its limitations and recommended directions for future research.

Chapter Two

Literature: Communicative rationality and natural resource management

2.1 Introduction

The fields of planning and natural resource management are similar in that they operate in contexts that involve multiple stakeholders and address problems that are inherently complex. In response, both fields have long advocated cooperative and coordinated approaches as a way to make decisions in such contexts. In the natural resource management field such approaches have been advocated and implemented for over seventy years (see Mitchell, 1986). Traditional participatory approaches have included public hearings, consultation, and opportunities for public comment (Bentrup, 2001: 739), which have been incorporated into certain point of the policy-making cycle.

However, these traditional participatory processes have been criticised as being unable to produce enduring integrated approaches to regional natural resource management (Bentrup, 2001: 739). In response, collaborative planning processes have been advocated as an alternative. Encouragement of collaborative planning approaches has come to permeate all aspects of the natural resource management literature, including: Integrated Resource and Environmental Management (e.g. Born and Sonzogni, 1995; Margerum, 1997), co-management (e.g. Reed, 1995; Paulson, 1998), and adaptive management (e.g. Schreiber *et al.*, 2004). However, procedural theory to guide the implementation of collaborative planning approaches to resource management remains relatively undeveloped.

In response, the natural resource management literature has become focused on developing procedural theory to guide the implementation of collaborative approaches (e.g. Mitchell, 1986; Born & Sonzogni, 1995; Margerum, 1997; 1999; Yaffee, 1998; Hooper *et al.*, 1999). In this, a number of authors (e.g. Slocombe, 1993; Selin & Chavez, 1995; Margerum & Born 1995; 2000; Margerum, 1997), particularly those advocating the concept of Integrated

Resource and Environmental Management (IREM), have turned to the planning literature.

In the planning literature, Arnstein's (1969) critical discussion of multi-stakeholder decision-making forms one seminal work on collaborative planning practice. Since Arnstein's (1969) thought provoking work many authors in the planning field have attempted to develop underpinning procedural theory to guide collaborative planning practice (e.g. Friedman, 1973; Sagar, 1994; Innes, 1995; Healey, 1997). Recently, this search has become focused on Habermas's theory of "communicative rationality" (see Forester, 1985; Sagar, 1994; Healey, 1995; 1997).

Described by the term communicative planning theory, this concept has gained acceptance within the planning literature as the dominant, but by no means the only (see Innes, 2004), theory underpinning collaborative planning practice. Communicative planning theory, as the current dominant theory underpinning collaborative planning practice, has also come to be advanced in (in some quarters of) the IREM literature as the basis for procedural theory for natural resource management (see Moore & Koontz, 2003; Lachapelle et al., 2003; Gunton & Day, 2003; Frame et al, 2004).

Communicative planning theory has been applied to natural resource management contexts in a relatively uncritical manner (Moote *et al.*, 1997; Buchy & Race, 2001; Moore & Koontz, 2003). There has not been a systematic evaluation of whether this theory represents the most appropriate choice to guide the implementation of natural resource management. There is no clear picture of whether communicative planning theory adequately identifies and accounts for the social, economic, biophysical, and political forces that shape natural resource decisions and outcomes. In short, there is a limited basis on which to determine in which contexts, if at all, communicative planning theory should be encouraged to guide the implementation of natural resource management. In response to this uncertainty there is increasing recognition that empirical evaluations of collaborative planning practice in natural resource management contexts are required (e.g. Bellamy *et al.*, 1999, Buchy & Race, 2001; Conley & Moote, 2003).

This chapter addresses this gap by developing an evaluative framework to critically analyse a collaborative approach to natural resource management in

practice. The objective of this evaluation is to determine the key influences and forces that shape decisions and actions, and to determine whether communicative planning theory addresses and accounts for these influences. Such an analysis provides understanding of whether approaches to natural resource management structured on the procedural theory of “communicative rationality” advance the substantive objectives of natural resource management.

This chapter is presented in five parts:

1. The concept of collaborative planning practice is defined;
2. The theoretical evolution of communicative planning theory is critically discussed;
3. The evolution of “communicative rationality” in the planning and natural resource management literature is outlined;
4. The communicative planning theory as procedural theory for natural resource management is critically analysed; and
5. The issue of evaluation is discussed before a framework for evaluation is presented.

2.2 Defining collaborative planning approaches

Collaborative planning approaches have been described under a number of terms both in the planning and natural resource management literature. These terms include: transactive planning (Friedmann, 1973), communicative planning (Healey, 1997; McGuirk, 2001), consensus building (Innes, 1995; Innes & Booher, 1999), co-management (Paulson, 1998), cooperation (Yaffee, 1998), coordination (Margerum, 1999), and partnerships (Mitchell, 1997). Essentially, these terms describe an approach to planning and management that involves ‘the pooling of ... resources by two or more stakeholders to solve a set of problems which neither can solve individually (Gray 1985: 912), and implies a sharing of power and a collective responsibility for both management actions and outcomes (Selin and Chavez 1995: 190). In Table 2.1 Bentrup (2001: 740) describes how collaborative planning approaches differ from traditional participatory planning approaches.

Table 2.1. Characteristics of collaborative planning approaches and traditional participatory planning

Collaboration-based planning	Participatory planning
Interdisciplinary approach—cross-disciplinary integration	Multidisciplinary approach—compartmentalization of disciplines
Stakeholders educate each other	Education is believed only to be necessary for the public
Informal face to face dialogue among stakeholders	Over-reliance on public hearings and other formal input methods
Continuous stakeholder participation throughout the planning process	Participation of stakeholders only requested at certain points in the planning process
Stakeholder participation encouraged to create a holistic plan	Stakeholder participation generally encouraged only to create support for a plan
Joint information search used to determine facts	Science used to buttress positions and refute other parties data
Generally, consensus is used to make decisions	Generally, voting is used to make decisions

Source: Bentrup (2001: 740)

While there has been convergence on what a collaborative approach is, there has been divergence on how and when a collaborative approach should be implemented. Despite the lack of a unified procedural theory collaborative planning approaches are being increasingly advocated and implemented, mainly because of the positive benefits of these approaches being identified within the case study and theoretical literature of both the planning and natural resource management fields. The benefits of collaborative planning practice identified include the ability to:

- combine information, knowledge and skills from multiple stakeholders (Mitchell, 1997; Margerum, 1999);
- generate agreement over solutions (Innes & Booher, 1999);
- create a sense of ownership over the outcomes (Mitchell, 1997);
- increase support for implementation (Mitchell & Hollick, 1993);
- open communication channels between participants (Buchy & Race, 2001);
- achieve mutual learning and personal growth from participants (Healey, 1997; Sager, 1994; Buchy & Race, 2001); and
- bring about increased democratisation of the decision making process (see Forester, 1989; Sager, 1994; Healey, 1997).

While these benefits are largely responsible for the popularity of collaborative planning practice within the literature and with practitioners there are a number of other reasons driving the implementation of such approaches.

2.2.1 The increasing implementation of collaborative planning practice

Within the literature three main arguments can be identified that encourage collaborative planning practice. These revolve around philosophical, practical, and political ideological arguments. Firstly, reflecting a more philosophical argument is the belief that collaborative planning promotes democratic principles in decision-making and more accurately reflects the pluralistic nature of society. This argument stems from the traditional modernist planning paradigm, (and from its social welfare roots, that planning is undertaken to achieve a “greater public good”).

Rationality for decisions or actions within a modernist planning paradigm is ‘constructed predominately through techno-scientific analysis and deductive logic, and through the prevailing voices which appeal to those forms of knowing/reasoning’ (McGuirk, 2001: 196). This empirical “test” of rationality in planning marginalises or excludes other “non-scientific” forms of reasoning and knowing, such as experience, values, and morals from the decision-making process (Healey, 1992; 1997; Innes, 1998; McGuirk, 2001). In response, communicative planning theorists have set out to reconstruct planning’s decision-making process to create an inclusive approach that is more reflective of the “post-modern” and heterogeneous world in which we live (see Healey 1992).

The second, more practical, rationale for collaborative planning practice stems from the view that planners operate in a decision context where power and responsibility for action is fragmented between multiple stakeholders. The reality of a capitalist political economy is one where planners must communicate, interact with, negotiate, and resolve disputes between powerful business, political, and community groups that each have a degree of control over planning (see Campbell & Fainstein, 1996). Planning issues have become increasingly complex and intractable as the world has become increasingly globalised (Healey, 1999; Innes & Booher, 1999). Proponents of collaborative planning practice argue that in this context enacting change requires developing

and managing relationships between multiple stakeholders (Healey, 1997; 1999; Innes & Booher, 1999).

Thirdly, it is increasingly being acknowledged in the policy analysis literature that collaborative forms of governance are being implemented because they facilitate a downsizing and hollowing out of government. The cause and effect of government movements toward collaborative decision-making is perhaps best articulated by Bishop & Davis (2001: 175):

Governments have chosen to implement participatory mechanisms in their own interest, primarily in response to their changing role. ... The Weberian model, which made bureaucracy's central concern the probity and legitimacy of decisions by public servants, has been supplanted by the goals of financial efficiency and effective service delivery. Where the procedural guarantees of the traditional hierarchical system sought to ensure the process was accountable in terms of a rational-legal authority, the goal of better service delivery and more efficient practice has come to dominate public sector management thinking.

In this analysis Bishop & Davis (2001) identify that the movement away from traditional hierarchical and representative governance structures have been driven by an ideological shift in the perceived role of government. These outcomes are consistent with political ideologies such as neo-liberalism and economic rationalism, which have come to dominate global economic and political thought (see Keating & Weller, 2001; Keating, 2001; Bishop & Davis, 2001; Painter, 1998b). Whereas governments once viewed their role as one to deliver services they now pursue goals of economic efficiency (Keating, 2001; Keating & Weller, 2001). Collaborative governance structures play an important role in facilitating this role transition away from service delivery to towards regulation (Keating & Weller 2001).

Specifically addressing the resource and environmental management sector, Lyster (2002) identifies that the growing number of collaborative governance arrangements between government and community reflects a neo-liberalist attempt to increase competition for service delivery in this sector. Collaborative approaches to decision-making facilitate the implementation of economic rationalist policies by devolving responsibility for service delivery from government to the community. Governments maintain the ability to regulate

service delivery because the collaborative approach is implemented within a broader (government controlled) legislative and policy framework.

With these driving forces it appears collaborative planning practice will form a fundamental part of planning and natural resource management in the future. It is therefore important to develop clear procedural theory to guide implementation. One such attempt to provide this procedural theory has been the development of communicative planning theory.

2.3 Examining the theory underpinning collaborative planning practice

No consensus has been reached within the literature regarding procedural theory to underpin collaborative planning practice (Innes 2004: 6). Attention has become focused on the concept of communicative planning theory as a procedural foundation for collaborative planning practice. Tewdwr-Jones and Allmendinger (1998: 1976) (summarising the work of Healey 1992: 154-155) describe the main components of communicative planning theory as:

1. Planning is an interactive and interpretive process;
2. Planning is undertaken among diverse and fluid discourse communities;
3. The methods require respectful interpersonal and intercultural discussion;
4. Focus is placed on processes where public discussion occurs and where problems, strategies, tactics, and values are identified, discussed, elevated, and where conflicts are mediated;
5. There are multifarious claims for different forms and types of policy development;
6. A reflexive capacity is developed that enables participants to evaluate and re-evaluate;
7. Strategic discourses are opened up to include all interested parties which, in turn, generates new planning discourses;
8. Participants in the discourse gain knowledge or other participants in addition to learning new relations, values, and understandings;
9. Participants are able to collaborate to change the existing conditions; and,
10. Participants are encouraged to find ways of practically achieving their planning desires, not simply to list their objectives.

Even the proponents of communicative planning theory hold divergent conceptions of the boundaries of this concept as a basis for planning (see Tewdwr-Jones and Allmendinger 1998: 1977; Innes 2004). As Tewdwr-Jones and Allmendinger (1998: 1977) identify, proponents' perception of the role of communicative planning theory vary. Perceptions of communicative planning theory range from a concept that can be applied in certain polarised contexts to move debate and decision-making forward (see Forester, 1989) to the belief that communicative planning theory represents the most appropriate paradigm to underpin, inform, and shape collaborative planning practice (see Healey 1992, 1997). It is the extension of this former attitude, the prescription of communicative planning theory as a procedural basis for IREM, which forms the focus of this research.

Despite the differing conceptions of the boundaries of communicative planning theory proponents of this concept advocate a communicative rational approach to planning and decision-making based on Habermas' critical theory of communicative rationality. It is this theoretical foundation that distinguishes communicative planning theory from other discourse oriented and cooperative approaches to planning and decision-making such as co-management (Paulson, 1998), cooperation (Yaffee, 1998), coordination (Margerum, 1999), and partnerships (Mitchell, 1997). To improve the understanding of communicative planning theory and to enable a critique of its application to natural resource management it is important to focus on the theoretical underpinnings of this theory.

Communicative planning theory can be conceptualised as a procedural theory of planning that has its foundations in the Habermasian critical theory of 'communicative rationality' (see Habermas, 1984). In his theory, Habermas advocates the application of a collaborative model of decision-making as a tool to achieve the democratisation of wider society. A number of planning theorists (e.g. Forester, 1985; 1989; Healey, 1992; 1997; Sager, 1994; Innes, 1995; Innes & Booher, 1999) have drawn on Habermasian theory to propose a more democratic planning process (Tewdwr-Jones & Allmendinger, 1998; McGuirk, 2001).

A multitude of interpretations of Habermasian theory, the role of planning, and the political context in which planning operates have meant that there is no unified theory of communicative planning theory. Instead, communicative

planning theory comprises a 'loose cluster of scholars who read and reference each others work but write about very different topics' (Innes 2004, 6). This very fluidity has made communicative planning theory both popular (it can be all things to all people) and difficult to critique. As a consequence, to improve the understanding of communicative planning theory and to enable a critique of its application to natural resource management, it is necessary to focus on the theoretical underpinnings of this theory. As such, it is important to describe and discuss the fundamental elements of Habermas's (1984) theory of 'communicative rationality' on which communicative planning theory is based.

When approaching the theory of communicative rationality it is important to note that Habermas constructed his conception of society in the broad Marxist tradition (Outhwaite, 1994). Outhwaite (1994: 6) asserts that underlying Habermas's (1984) theory of communicative rationality was his preoccupation with the idea that instrumental rationality, seen as a liberating force at the time of the Enlightenment, has now become a source of enslavement. Habermas argues that this enslavement has occurred because the power to make decisions has been removed from the individual and from communities through the development of an "objective" test of truth, and vested with those that construct, and have the knowledge to appeal to, this decision framework (i.e. the elites of society) (Outhwaite, 1994: 6). It is from this position that Habermas (1984) proposes his social theory of "communicative rationality", in which he proposes to replace "scientific" measures of rationality in decision-making with measures that are founded in debate, negotiation, and argumentation.

The foundation for Habermas's (1984) theory is his rejection of the concept that society is made up of individuals that come into contact with each other (interact) as each one pursues the goal of maximising their own self-interests (see Forester, 1985; Healey, 1997). Habermas (1990: 133) argues that if maximising self-interest is the determinant of individuals behaviour then collaboration will only occur when each individual believes participation will lead to personal benefit. Instead, Habermas (1984) conceptualises society as being made up of individuals whose consciousness is continually being socially constructed through interactions with other individuals. Habermas (1984) hypothesises that individuals construct their own conceptualisation of reality in two ways.

Firstly, reality is constructed within an individual's own consciousness through their own perceptions, moral reasoning, and emotive feelings (Giddens, 1984; Healey, 1997). Secondly, the construction of reality by an individual is influenced through the interaction with other individuals, each holding their own constructions (Habermas, 1984; Giddens, 1984; Healey, 1997). Habermas (1990) argues that in this context a decision-making model that encourages the collective construction of goals can create an environment in which achieving understanding and agreement become the aim, rather than the achievement of self benefit (which is encouraged by individual constructions of reality).

The decision-making model that Habermas (1984) proposes is his theory of 'communicative rationality', in which he theorises that interaction involving collective reasoning, argumentation, and analysis can develop a unified vision of reality, and thus create social integration, group solidarity and coordinated action. Habermas (1984; 1990) asserts that benefits will be wide-ranging, resulting in the increased democratisation of society.

The foundation for this argument is the belief that reality is not only constructed by individuals and through interactions (as discussed above), but is also influenced by the broader *context* in which it is constructed (Habermas, 1984; Giddens, 1984). Habermas (1990: 135-136) conceptualises that this context is made up by the social norms, cultural givens, and resources in society, which influence the interpretative ability of the participants by providing a knowledge framework that alternative conceptions of reality can be evaluated against.

Habermas (1984) argues that the capitalist economic and socio-political systems that make up the overarching structure of society encourage the pursuit of individual success. He argues this institutionally ingrained knowledge framework has replaced social interaction and discussion as the force driving the construction of reality by an individual¹. By proposing his theory of 'communicative rationality', Habermas (1984) proposes to reduce the influence that the capitalistic structure of society (expressed through the overarching political and economic system) has over an individual's construction of reality, and replace this with a process of collective reasoning.

To reduce the influence that the structure of society has over individual conceptualisations Habermas (1984) argues that the determination of courses of

¹ This is what Habermas (1984; 1990) refers to as the colonisation of the life-world

action should not be based on scientific or political evaluation of what is rational (which support the existing structure of society), but should be socially determined through interaction and discussion by the individuals themselves. Decision-making thus becomes a form of interactive collective reasoning (Healey 1997), where rationality is determined through consensus or agreement (Forester 1985; Innes 1996), and is developed through applying all forms of reasoning, including scientific, moral, ethical and emotional analysis (Healey 1997). It is this theoretical basis that forms the foundation of current communicative planning theory.

While communicative planning theory has grown in popularity it is not without its critics. This theory has come under criticism that it would marginalise less dominant interests and result in outcomes that, instead of being democratic, favour more powerful interests (see Flyvbjerg, 1998; Hillier, 2003). To counter this argument communicative planning theorists infer that traditional power inequalities can be overcome when debate occurs in an environment where traditional power structures are set aside and where discussion is based on principles of honesty, sincerity, and openness (see Healey, 1997; Innes, 1996). This is referred to as an “ideal speech situation” (Habermas, 1984), an environment in which domination does not occur and each stakeholder has the same opportunity to present arguments and have them accepted (Sager, 1994: 5).

In Habermas’ ideal speech situation participants explore each other’s concerns. This exploration requires that participants recognise and respect different kinds of claims, and collectively develop a framework that provides validity and priority to different arguments. This framework provides subjective criteria as an alternative to the traditional “objective” criteria that instrumental rationality claims to provide (Healey, 1997: 52-53). In this context, the power of the better argument is believed to win the day, resulting in outcomes that represent not relative individual perceptions, but collectively agreed “truths” or “values”.

Communicative planning theory offers opportunities for exchanging ideas, bringing stakeholders together, and encouraging the development of negotiated decisions and outcomes. However, there are a number of elements of this theory that bring into question its ability to engage with and account for the social, economic, biophysical, and political forces that influence natural resource decisions and outcomes. To identify how communicative planning theory came

to be advanced as procedural theory to underpin natural resource management it is necessary to trace recent developments in the planning and natural resource management literature.

2.3.1 The application of Habermasian theory to planning

Current theory and practice is a product of both historical and contemporary influences. To understand why communicative planning theory has become a dominant paradigm within the planning literature it is necessary to trace both historical and contemporary developments.

Since the late nineteenth century, where planning in Britain developed as a reformist response to the social ills created through a laissez-faire approach to development during the industrial revolution, planning theory has undergone a process of evolution (Cherry, 1974; Sutcliff, 1980; Hall, 1992; Ward, 1994). From these beginnings the evolution of planning theory can be characterised into three distinct stages; master planning, systems approach, and “post-modern” approaches to planning (Dear, 1986; Yiftachel, 1989; Hall, 1992). While communicative planning theory stems from the most recent “post-modern” era (with its embracing of heterogeneity and the quest for democratic decision-making processes) historical theoretical developments have played a role in the structure and acceptance of communicative planning.

Communicative planning theory first emerged within the literature with Forester’s (1985) application of Habermasian theory to planning. This work encouraged a number of planning theorists (e.g. Healey, 1992; 1997; Sager, 1994; Innes, 1995; Innes & Booher, 1999) to pursue Habermasian theory as a basis for planning (see Tewdwr-Jones & Allmendinger, 1998). While Sager (1994: 5) identifies that Forester was not the first to conceptualise a planning theory based on communication (citing Friedmann, 1973), Forester (1985) was the first to apply Habermasian theory to propose a set of substantive principles about the planning process based on ‘communicative rationality.’

This set of principles stemmed from Forester’s (1985) criticism of the rational-comprehensive model, the decision-making model that underpinned the systems approach to planning. The systems approach was a scientific one, where decisions were made using a scientific and technological framework. Forester’s criticism was aimed at the way in which decisions were made (i.e. deemed to be

rational) under this approach². Through the application of Habermas's (1984) theory of 'communicative rationality', Forester (1985) proposed a "new" test of rationality for policy, plans, and action.

Forester's work formed the basis of a new procedural theory of planning that viewed planning as an interactive process undertaken within a social context. This view of planning as an interactive process pushed the technical or scientific process that dominated the systems approach to planning out of favour (see Healey, 1997). This transition has been termed the 'communicative' turn in planning theory. It is a transition that has given rise to collaborative planning practice and the procedural theory of communicative planning theory, which has come to dominate contemporary planning theory (see Innes, 1995; 1996; Healey, 1992; 1997; 1999).

Forester's application of Habermasian theory came at a time when planning was conducive to the acceptance of this theory. Indeed, many of the arguments advanced in communicative planning theory had already been discussed and accepted in the planning literature. For example, Forester (1985) and Innes (1996) proposed that the determinant for what is a rational course of action should be agreement by all affected interest groups. This reflects the test of what makes a good policy proposed by Lindblom (1959), and more generally, is not so far removed from the "advocacy" model of planning proposed by Davidoff (1965).

"Communicative rationality" also responds to "post-modern" theory. Developed during the 1960s and 1970s as a criticism of the "modernist" rational-scientific approach to planning, "post-modern" theory advocated a more inclusive approach to decision-making that accepts diversity, and provides a role for non-scientific variables. Communicative planning theory draws heavily from "post-modern" theory (see Healey 1992; 1997; Innes 1998; McGuirk 2001). The inclusive approach advanced by communicative planning theorists is also reflective themes advocated by key contributors to planning theory such as Jacobs (1961) and Arnstein (1969). By building on historical theoretical developments communicative planning theory improved its chances of acceptance within the theoretical literature.

² Rationality under the rational-comprehensive approach is constructed by the political and economic elites within society, rather than by the collection of individuals that made up society (Forester, 1985).

The political landscape also contributed to the acceptance of Habermasian theory as a theoretical basis for planning. In the 1970s planning theory began to be dominated by criticisms of the rational-comprehensive approach, which called for more inclusive models of decision-making and for greater weight to be given to individual's often-intangible values. This period was immediately followed by the recession ridden 1980s, in which planning was seen as increasingly irrelevant by government as government sought to "free up" development processes to stimulate the economy (Dear, 1986). As a result, planning at this time was struck by a theory-practice divide (see Dear, 1986). This theory-practice divide led to a growing need for a new theory to provide much needed direction. It was into this environment that Forester (1985; 1989) proposed a procedural theory of planning heavily influenced by Habermasian social theory.

This theoretical and political context gave communicative planning theory an advantage over more revolutionary theories of planning (such as neo-Marxist theory), that were competing for recognition and acceptance in the 1980s to fill the theory gap following the criticism and rejection of the systems approach to planning (Dear, 1986). This competitive advantage ensured that communicative planning theory would play a major role in contemporary theoretical development, but did not ensure the theory would become the dominant planning paradigm. Communicative planning theory received further endorsement through the actions of planning practitioners, who were targeted with appeals to encourage collaborative planning practice (see Sarkissian, Cook & Walsh, 1997; Sandercock, 1998; Forester, 1999b).

By appealing to planning practitioners hungry for identity and purpose, collaborative planning found a place in practice before it gained dominance in theoretical debates. In essence, the political and theoretical environment at the time when communicative planning theory was developed, in conjunction with the resonance collaborative planning practice has found with planning practitioners, has created a situation whereby communicative planning theory is being advocated and applied without a critical analysis, or evaluation, of the ability of this theory to achieve its mooted benefits. In short, planning practice is ahead of theory.

2.3.2 The application of communicative planning theory to natural resource management

Concurrent to these developments, natural resource management theory was undergoing its own reorganization. Natural resource issues are difficult to address because of the inherent fragmentation, conflict, and uncertainty that characterise them (Mitchell, 1997; Hooper et. al, 1999; Bellamy & Johnson, 2000), and their complex and interconnected nature (Mitchell, 1997; Margerum, 1997). Traditional approaches to natural resource issues have been criticised for being unable to manage these complexities (Margerum, 1997), failing to provide equitable outcomes when faced with multiple stakeholders (Dale & Bellamy, 1998), and for exacerbating tension and conflict (Hoffman & Mitchell, 1998). Collaborative approaches have long been advocated and implemented to address these difficulties (see Mitchell 1986), however, there has been limited procedural theory to guide implementation.

In particular, collaborative approaches have been advocated by those seeking to implement integrated approaches to natural resource management. In the literature integrated approaches have been described under a multitude of terms. These include Integrated Environmental Management (Born & Sonzogni, 1995; Magerum & Born, 1995; Margerum, 1997; 1999), Integrated Resource and Environmental Management (Hooper et al., 1999), Ecosystem Management (Slocombe, 1993; 1998; Grumbine, 1994), Integrated Resource Management (MacKenzie, 1997; Bellamy & Johnson, 2000), Watershed Management (Mitchell, 1990), and Integrated Catchment Management (Mitchell & Hollick, 1993). While each of these terms has been defined in the literature, dominant themes can be identified (see Table 2.2). Within this thesis integrated approaches are described under the broadest term, Integrated Resource and Environmental Management (IREM).

Table 2.2: Dominant themes used to define integrated approaches to natural resource management

Theme	Author
Adopt ecologically or biophysically defined regions as the appropriate scale for planning and management units	Grumbine 1994; Slocombe 1993a; 1998; Margerum 1997; Hooper et al. 1999.
Acknowledge the interconnected nature of environment issues and manage regions as complete interactive systems	Grumbine 1994; Born & Sonzogni 1995; Margerum & Born 1995; Margerum 1997; Hooper et al. 1999.
Integrate ecological, social and economic considerations into decision making	Slocombe 1993a; Grumbine 1994; Bellamy & Johnson 2000;
Recognise the diversity of values held by stakeholders and the need to develop a shared vision of the future	Mitchell 1997; Bellamy & Johnson 2000
Ensure coordination between both levels of government and different government agencies, as well as with other stakeholders and the wider community	Grumbine 1994; Born & Sonzogni 1995; Margerum & Born 1995; Hooper et al. 1999; Slocombe 1998; Margerum 1999.
Employ adaptive management allowing flexibility when dealing with uncertainty	Grumbine 1994; Slocombe 1993; Mitchell 1997; Bellamy et al. 1999.
Management is strategic in nature	Born & Sonzogni 1995; Margerum & Born 1995; Margerum 1997.
Management is goal focused	Born & Sonzogni 1995; Margerum & Born 1995; Margerum 1997.
Pursue multiple use of natural resources to attain social, economic, environmental, and cultural goals	Mitchell 1986; Bellamy et al. 1999.
Encourage an interdisciplinary approach	MacKenzie 1997; Bellamy et al. 1999
Focus on public participation and collaborative decision-making	Mitchell 1997; Bellamy et al. 1999

These themes are perhaps best synthesised in the definition of integrated approaches to natural resource management described by Hooper *et al.* (1999: 748, citing Hooper, 1997):

We characterise integrated resource and environmental management as the *co-ordinated* management of land, water and other resources within a region (river valley or bioregion), with the objectives of conserving or rehabilitating the resources and environment, ensuring biodiversity, minimising land degradation, and achieving specific and agreed land and water management and social objectives. (emphasis added)

Integrated approaches to natural resource management have a long history. Mitchell (1986), in tracing the evolution of integrated approaches in North America, identifies that initial forms of this management approach had been discussed and promoted in the United States from as early as the turn of the twentieth century, with the first real example being put into practice in the 1930s (Mitchell 1986: 18)³.

Since these first examples, integrated approaches have emerged in parallel in a number of fields, including water and natural resource management, urban and regional planning, public administration and policy, and organisational sciences (Slocombe, 1993a Margerum & Born, 1995; Margerum, 1997). Mitchell (1990: 2-3) identifies that integrated approaches to resource management have been implemented in many other countries, including England and Wales (from the 1970s), France (from the mid 1960s), Canada (since 1946), New Zealand (since before the Second World War) and Australia (since the mid 1980s). Despite this long history there have been limited successful examples of implementation (Mitchell, 1986: 22). This lack of success has led a number of authors (e.g. Slocombe, 1993a; Margerum & Born, 1995; Margerum, 1997) to seek the development of a stronger procedural theory to guide implementation.

IREM draws on the theory underpinning concepts such as co-management, adaptive management, and landscape ecology. Proponents of IREM seek to improve implementation by marrying the substantive concerns of the physical sciences with the procedural concerns of the planning field (see Slocombe,

³ While Mitchell (1986; 1990) identifies that earlier approaches to resource management adopted some elements of integrated approaches when implemented (e.g. watershed Conservancy Districts in Ohio in 1913) Mitchell identifies the Tennessee Valley Authority established in 1933, as the first approach to fulfil all components of an integrated approach (Mitchell 1986: 18).

1993; Margerum & Born, 1995; Margerum, 1997). These authors sought to apply the experience the planning field has with managing conflict, working with multiple stakeholders, public participation, and dealing with the political nature of decision-making to natural resource management. The theory underpinning IREM has been centred on two important aspects: what an integrated approach should contain (substantive concerns) and how it should be implemented (procedural concerns).

Substantive Elements

Authors in the resource and environmental management literature have been working towards consolidating the substantive elements of integrated approaches into a unified theory (e.g. Mitchell 1986; Grumbine 1994; Margerum & Born 1995; Born & Sonzogni 1995; Margerum 1997). Fundamental to the concept of IREM is the adoption of a naturally defined region as the planning unit. This approach aims to manage this unit as a complex, interconnected system, and to achieve environmental outcomes through a process of integrating the goals and actions of those with management responsibilities. An integrated approach seeks to achieve these aims by adopting a management system that is:

- holistic
- interconnected
- goal orientated; and
- strategic in nature⁴

Holistic

A holistic approach can be defined as one that incorporates the broadest possible range of physical and socio-economic factors into management decisions (Mitchell & Hollick, 1993; Margerum, 1997). The inclusion of multiple factors is important because the environment operates as an interconnected system where changes made within that system affect other components (Margerum, 1997: 465). To be successful the scope and scale of management decisions must be sufficiently inclusive to embrace all the critical factors, including the social, economic, political and biophysical elements that influence the management of the ecological system. A holistic approach requires regional/cross boundary management whereby all key stakeholders

⁴ For a detailed description of these substantive elements see Mitchell 1986; 1990, Born & Sonzogni, 1995, Margerum & Born, 1995, Margerum, 1997

(government and non-government, organisational and individual) that hold responsibility for managing components of the system (Margerum, 1997: 467).

Interconnected

This element reiterates the need for a holistic approach but specifically identifies the need to examine and understand the interconnections between various system components. The broad scope of resource management requires decision-makers to understand the effect changes to any variable (social, economic, political or biophysical) will have on other system variables (Margerum, 1997). To account for the interconnected nature of natural systems a broad approach is required. Narrow, issue-based approaches do not take into account the complexity of natural systems (Margerum, 1997: 467). To understand how these system components interact and affect each other stakeholders must share information and work together to build understanding (Margerum, 1997: 467).

Goal Oriented

The multiple stakeholders involved in regional natural resource management necessitate the identification of common goals. Identifying common goals provides clear direction for management decisions and can help stakeholders to develop a shared understanding of the problems faced, and identify a common direction for the resolution of these problems (Margerum, 1997: 467). Once identified, stakeholders must commit to work towards these goals. Only when each stakeholder with responsibility/jurisdiction over the management of components of the wider system come together in collaborative action can integrated management be achieved.

Strategic

A holistic approach is often confused with a comprehensive approach. Born and Sonzogni (1995) identify that the complexity and interconnected nature of natural resource issues means that total understanding of the system and its inherent cause-and-effect relationships is an unattainable goal. In response, it has been proposed that integrated management approaches reduce the number of variables and interrelationships to be analysed to target those that are most influential or important for achieving identified goals (Born & Sonzogni, 1995; Margerum & Born, 1995; Margerum, 1997).

Born & Sonzogni (1995: 171) identify that this strategic-reductive approach occupied the theoretical space between rational-comprehensive and incremental approaches to planning and management. It is an approach designed to ensure IREM remains 'adaptive, anticipatory, and more attuned to the realities of the political decision arena (Born & Sonzogni, 1995: 171).

While the substantive elements of IREM approaches have been well discussed in the literature it has been acknowledged that there is a theoretical gap concerning how it may be implemented (see Slocombe, 1993a; Margerum & Born, 1995; Margerum, 1997). This gap has encouraged the search for procedural theory to guide implementation.

Procedural Elements

The search for procedural theory has led a number of authors in the resource and environmental management literature to advocate a merger of the substantive concerns of the physical sciences, with the procedural concerns of urban and regional planning (see Slocombe, 1993; Margerum & Born, 1995; Born & Sonzogni, 1995; Margerum, 1997; Bellamy & Johnson, 2000). These authors seek to apply the experience the planning field has with managing conflict, working with multiple stakeholders, and dealing with the political nature of decision-making, to natural resource management.

Margerum (1997: 470) identifies that the merger of the physical sciences and planning is driven by an increasing awareness that issues of communication, public participation, conflict resolution, and stakeholder coordination are central to the implementation of integrated approaches. This suggestion is reiterated by Hofmann & Mitchell (1998) who argue that the structure of the decision-making process, and the influence this has on stakeholder interactions, can cause much of the tension and conflict experienced when undertaking natural resource management.

Margerum (1997) argues that conflict, participation, and communication are well-studied concepts in the planning field and incorporating this knowledge into natural resource management will assist implementation. Within the resource and environmental management literature communicative planning theory has come to be advanced in (some quarters) of the IREM literature as procedural theory for natural resource management (see Moore & Koontz, 2003; Lachapelle et al., 2003; Gunton & Day, 2003; Frame et al., 2004).

Table 2.3 traces the development of collaborative planning approaches within the planning and natural resource management literature. This table identifies that collaborative decision-making processes developed concurrently within these fields. As collaborative planning began to dominate planning theory and practice in the 1990s a number of authors in the resource and environmental management literature began to draw on this theoretical framework as the basis of procedural theory for IREM (see Slocombe, 1993a; Margerum & Born, 1995; Born & Songzogni, 1995).

This acceptance of communicative planning theory is occurring, however, without a critical analysis of the theory underpinning this theoretical framework. Many authors articulate *why* they have turned to the planning literature, but are less clear *how* communicative planning theory can improve the implementation of natural resource management.

Table 2.3: Tracing the recent development of communicative planning theory in the planning and the natural resource management literature.

Period	Planning Theory	Resource and Environmental Management Theory
1980s	Application of Habermasian theory, particularly the theory of 'communicative rationality' to planning (Forester 1985, 1989). This was used to develop a normative model of planning.	Development of the concept of IREM increased attention on the need for collaboration (see Mitchell 1986).
1990s	<p>Increasing application of Habermasian theory to planning (see Healey 1997, Sager 1994, Innes 1995). Theory is adapted and refined to suit planning theory.</p> <p>Widening application of the theory as an integral way to achieve sustainability (see Jacobs 1999)</p> <p>Critiques of Habermasian theory and its application to decision-making as a way to achieve democratic and equitable outcomes emerge in the policy sciences literature (Flyvbjerg 1998). These are typically based on a Foucauldian analysis.</p>	<p>Consolidation of integrated approaches into a unified theory, coupled with better development of the substantive elements of these approaches (see Mitchell 1986, Margerum and Born 1995, Born and Sonzogni 1995, Margerum 1997).</p> <p>Increased acknowledgement that there was a procedural gap in the theory concerning the implementation of integrated approaches (Margerum and Born 1995, Margerum 1997).</p> <p>Calls for the adoption of planning theory (Slocombe 1993) and specifically communicative planning theory to underpin procedural elements of IREM theory (Born and Sonzogni 1995, Margerum, 1997).</p>
Early 2000s	Building on the critiques of the policy science literature, criticism of the ability of collaborative planning approaches to achieve democratic and equitable outcomes begins to emerge in the planning literature (see McGuirk 2001)	Review/analysis of collaborative planning approaches to natural resource management identify that outcomes have not always achieved aims (see Moote <i>et al.</i> 1997, Buchy and Race 2001, Parkins 2002)
Current	Increasing calls from the planning and natural resource management literature for the evaluation of collaborative planning practice (Innes and Boher 1999, Bellamy <i>et al.</i> 1999, Conley and Moote 2003)	
Future?		

2.4 Critiques of communicative planning theory

Critics identify a number of barriers that inhibit the application of communicative planning theory as procedural theory to guide natural resource management. These barriers can be summarized under three key issues:

- The attitudes, perceptions and skills of the participants (e.g. McGuirk, 2001; Parkins, 2002; Polanyi, 2002; Paulson, 1998; Gibson & Koontz, 1998; Bradshaw, 2003; Moote et al., 1997; Kellert et al., 2000; Carr et al., 1998);
- The way power and interests are manifested within the decision-making process (e.g. McGuirk, 2001; Bradshaw, 2003; Buchy & Race, 2001; Parkins, 2002; Brown, 2002; Polanyi, 2002; Huxley & Yiftachel, 2000; Reed, 1995); and,
- The influence of the institutional and structural context in which decision-making takes place (e.g. Parkins, 2002; McGuirk, 2001; Buchy & Race, 2001; Hillman et al., 2003; Gibson & Koontz, 1998; Michaels, 1999; Lachapelle et al., 2003; Moote et al., 1997; Kellert et al., 2000; Haight & Ginger, 2000; MacKenzie, 1997; Margerum, 1999a; Mitchell, 1990).

2.4.1 Attitudes, perceptions, and skills of participants

A review of the case study descriptions indicate that, despite the claims of the proponents of communicative planning theory to the otherwise, collaborative decision-making processes (like other decision-making processes) are a value-laden environment where participants bring to the decision-making process their values, attitudes, perceptions and interests (see Moote *et al.*, 1997; Paulson, 1998; Kellert *et al.*, 2000; McGuirk, 2001; Parkins, 2002; Bradshaw, 2003). Paulson (1998) and Moote et al. (1997) identified that, within the case studies they reviewed, these values were so deeply held that collaborative processes could not modify them. In fact, Moote et al. (1997) stated that in these circumstances drawing these stakeholders together in a collaborative decision-making process can actually increase conflict, rather than encourage agreement. Conflict results because participants, representing different interests and holding divergent views, cannot always reach agreement.

Conflict can also be exacerbated by the very nature of collaborative decision making. Negotiated outcomes can create 'winners' and 'losers', which can be defined in terms of stakeholders winning or losing power or responsibility to control the use of a natural resource, or the loss of a right to achieve some gain

(economic, social or biophysical) from a natural resource. The consequences of this outcome are perhaps best articulated by Hooper et al. (1999: 756):

Any group which perceives it may be one of the losers is unlikely to exhibit enthusiasm for co-ordinating and collaborating, and instead is more likely to adopt a defensive position to protect what is perceived to be its own interests.

The creation of 'winners' and 'losers' through negotiated outcomes, and the subsequent stakeholder actions resulting from these outcomes, represent a key critique of communicative planning theory. Outwaite (1994: 110) identifies that Habermas's theory of communicative action (in which collective decision-making models are proposed to elevate communal concerns over self benefit as decision-making criteria is in contrast to 'a substantial body of theory' that views social action as driven from the strategic principle of the pursuit of rational self-interest.

The view that self-benefit forms a key criterion for decision-making in natural resource management contexts is supported by the argument that stakeholders will only enter a collective approach if doing so assists each to achieve their own individual aims (Yaffee, 1998). Collaborative decision-making processes remain functional by pursuing win-win outcomes for participants, with final decisions being shaped by the interests of participant stakeholders and the negotiating power each wields (see Flyvbjerg, 2002). This argument is in direct contradiction to the process of decision-making fundamental to communicative planning theory and questions whether decision-making processes structured around this theoretical framework produce real improvements to the way natural resources are managed.

Traditionally, decisions concerning natural resource management were undertaken through the application of scientific knowledge within a political framework of guiding legislation and administrative practices (Yosie, 2001). With the advent of collaborative planning practice scientific evidence may no longer represent the key means to gain legitimacy for natural resource decisions (see Yosie, 2001; Hillier, 2003). Scientific information may be marginalized in collaborative decision-making processes because individual participants often lack technical expertise (Yosie, 2001) and stakeholders often commit to values and decisions as a matter of identity, not necessarily for rational reasons (Hillier, 2003: 39). Further, the advice and guidance of planners, resource managers

and other experts may carry less weight as these experts (in keeping with the pluralistic approach advocated by communicative planning proponents) are treated as just another stakeholder with contestable arguments (Tewdwr-Jones & Allmendinger, 1998: 1984).

By marrying this argument with post-modernist planning theory a critique can be levelled at the decision-making processes advanced by communicative planning theory. If decisions move away from science as a basis for policy towards agreement from stakeholders then this can result in decisions that do not adequately address natural resource issues, but simply satisfy social constructions of what is adequate management. Most of the perceived benefits of collaborative approaches relate to improvements in procedural aspects of implementation (i.e. more democratic decisions, the inclusion of values and moral arguments), and not to improvements in the way that natural resources are managed (Bellamy *et al.*, 1999).

Approaches based on communicative planning theory may offer improvements to the way stakeholders engage in decision-making, but this does not necessarily result in improvements in the management of the natural resources (Tewdwr-Jones & Allmendinger, 1998: 1983; Helling, 1998). Perhaps their adoption can be described as a “leap of faith” in the belief that improvements to the processes of natural resource decision-making will be translated into improvements “on-the-ground”. Evidence provided by a review of existing collaborative approaches to natural resource management undertaken by Margerum and Hooper (2001: 7), however, indicate that the transition to a collaborative approach does not necessarily translate into improved natural resource management.

2.4.2 *The issue of power*

As a result of the fragmented nature of responsibility for natural resource management, and the competing interests involved, power struggles lie at the heart of natural resource management (Buchy & Race, 2001). In this context, every decision becomes a political one. Collaborative planning practice has been criticised for an inability to prevent powerful elites (both interest groups and individuals) from overly influencing planning outcomes (see Flyvberg, 1998; 2002; McGuirk, 2001; Hillier, 2003). As a consequence, the ability of communicative planning theory to deliver on its proposed benefits is beginning

to be questioned, both in the planning and the natural resource management literature.

The main criticism of the way communicative planning theory deals with power is perhaps best described by McGuirk (2001: 196), who states that communicative planning theory does not sufficiently take into account the politics and power-laden context in which planning operates. This critique is reiterated by Flyvbjerg (2002: 353), who identifies that a focus on Habermasian communicative rationality has resulted in a failure to acknowledge the political power struggles that are inherent in decision-making. These criticisms are supported by case study research that identifies that decision-making under a collaborative approach does not take place in a power-free environment. Instead, participants and external interest groups bring power to bear in an attempt to influence outcomes (Buchy & Race, 2001; McGuirk, 2001; Parkins, 2002; Bradshaw, 2003).

There are a number of ways that power can be used to influence the outcomes of collaborative decision-making processes. For instance, powerful interests within a community (local elites) can utilise their influence to bias outcomes (see McGuirk, 2001; Bradshaw, 2003). Buchy and Race (2001) and Parkins (2002) identify that those that design or facilitate the collaborative processes also can use their power to influence outcomes through controlling what type of information is introduced, and what alternatives are open for discussion. Power can also be expressed through political channels for, as Brown (2002) indicates, even collaborative processes that produce enduring agreements between involved stakeholders can be vetoed by those in power (e.g. government bodies) if those charged with making a decision are also not allocated the power to make it policy.

McGuirk (2001: 196) argues that communicative planning theory does not accept that powerful interests can influence the outcomes of collaborative approaches. Collaborative planning theorists (e.g. Innes, 1995; Healey, 1997; Innes & Booher, 1999) infer that power inequalities can be overcome through decision-making structures that focus on gaining agreement through stakeholder debate. McGuirk (2001) and Hillier (2003) assert that this is a somewhat naïve proposition that reflects how communicative planning theory assumes away, rather than engaging with, the issue of power inequality. For collaborative approaches to move towards developing equitable and sustainable outcomes

power needs to be accepted as an integral part of the decision-making process, and theories and practice needs to be modified to identify how to operate within this context (McGuirk, 2001; Flyvbjerg, 2002; Hillier, 2003).

2.4.3 Institutional and external influences

Collaborative approaches operate within, and do not replace, an overarching framework of legislation, policy and defined stakeholder responsibilities. This framework can be described as the institutional arrangements within which planning and management takes place. Institutional arrangements consist of formally defined (statutory) stakeholder responsibilities (as outlined in legislation and policy), and agreed roles and guidelines that represent informal (non-statutory) rules that guide behaviour, stakeholder interaction and decision-making. Institutional arrangements are outside of the control of stakeholders engaged in collaborative planning practice, but have a significant influence over how issues are identified, framed and how decisions are made (see Lachapelle et al., 2003; McGuirk, 2001; Buchy & Race, 2001; Kellert et al., 2000, Leach, Mearns & Scoones, 1999).

Current institutional arrangements include administrative boundaries that often bear no relation to ecological, economic, or social processes operating within a given region. Additionally, responsibility for planning and management is fragmented to a number of government departments and agencies, located within multiple levels of government. To achieve a holistic approach to natural resource management in the current institutional environment four levels of coordination are required:

- Horizontal coordination between agencies and departments within the same level of government when management responsibility for components of a single natural system are fragmented between them;
- Horizontal coordination between government and non-government stakeholders who affect, or are affected by, natural resource management; and,
- Vertical coordination when responsibility for management of the processes of an ecological unit rests with different levels of government.

(Slocombe, 1993; Hooper et al., 1999)

The coordination required has been described conceptually by Colebatch (2002: 24), and is presented as Figure 2.2.

Figure removed, please consult
print copy of the thesis held in
Griffith University Library

Figure 2.1: Coordination required for a holistic approach to natural resource policy implementation
(Colebatch, 2002: 24)

While communicative planning theory advances that this level of coordination can be achieved through the development of a collaborative decision-making process and through relationship building, there are many barriers to its achievement.

One of the major difficulties in achieving coordination has been identified by Hooper et al. (1999), and Yaffee and Wondelleck (2003) as resistance to power sharing by government agencies and departments, especially where its acceptance diminishes the rights previously held. Chaskin (2005) identifies a key reason for this unwillingness by government agencies to devolve power to community groups as discordance between community-based collaborative decision-making processes and the rational-comprehensive approach to decision-making of (government) institutions. Collaborative decision-making processes challenge the traditional approach to decision-making within government agencies and are met with opposition.

Communicative planning theory focuses on the process of collective decision-making as a mechanism to achieve coordination (which inherently is an issue of power sharing). Margerum (1997) argues that this focus does not adequately take into account the structural changes that need to take place within institutions to achieve coordination. As Kraft & Johnson (1999) identify, collaborative approaches cannot comprehensively address issues without external support from policy-makers, the public, and industry. To achieve a holistic approach to management collective decision-making processes must be framed by supportive institutional arrangements. By focusing on internal decision-making processes communicative planning theory fails to acknowledge the role that external institutional arrangements play in shaping outcomes (Chaskin, 2005).

In addition to these institutional barriers there are also wider external forces that limit the effectiveness of collaborative decision-making processes. In the context of natural resource management external forces refer to the wider societal pressures that influence how resources are managed. For example, a regional economic downturn can encourage a community to exploit their natural resources. Short-term unsustainable use of the resource may be preferable (to the community) than economic hardship. External forces can be powerful determinants of resource use (Buchy & Race, 2001: 194; Yaffee, 1998: 305). It is therefore important to identify the significant economic, political, social,

cultural and biophysical issues within a community/region and determine if (and how) these issues affect resource management. Communicative planning theory seeks to manage natural resources through principles drawn from “communicative rationality”, but there are many forces that shape resource decisions (including these external forces) that are beyond the capabilities of this theory.

Critics of communicative planning theory have had an impact in the planning literature. Recently, proponents of communicative planning theory have begun to distance themselves from the theoretical framework (see Forester, 1999; Healey, 2003; Innes, 2004). In doing so these authors have acknowledged many of the criticisms levelled at communicative planning theory and have sought to temper enthusiasm for this theory:

I do not mean to claim that inclusionary collaborative processes are inherently ‘the best’, or even ... that they are the most appropriate for ‘our society’ at the present time. Instead [when discussing communicative planning] I suggest critical questions that those designing and evaluating policy process should be encouraged to ask. (Healey, 2003: 115)

Consensus building is not a panacea. It is time consuming and requires skilled staffing. It only makes sense in situations where stakeholders are not satisfied with their options working alone or with few others and where significant problems that they all care about demand solution. It is only worth doing when acceptable solutions are not emerging from traditional decision-making processes. (Innes, 2004: 15)

Communicative planning theory began as a procedural theory to underpin community-planning processes to foster inclusive planning practice. Along the way it evolved into a procedural theory that was advanced as the most appropriate approach for broad-scale and complex decision-making. It can now be seen that in the literature both critics and proponents alike have attempted to reign in proponents that unquestioningly advocate collaborative planning practice. As yet these developments do not appear to have tempered enthusiasm for collaborative planning practice in the natural resource management literature. Researchers and practitioners should take heed of these recent developments and approach collaborative planning practice, and communicative planning theory specifically, with caution.

2.5 The need for evaluation

Collaborative planning practice is being endorsed by theorists, practitioners, and government for a variety of reasons, including that it is more democratic approach to decision-making, reflects the practical realities of modern society, and because it is a more efficient form of governance (see section 2.2.1). These claims are being made based on the theorized benefits of the theory underpinning collaborative planning practice, as no empirical evaluations of this approach to decision-making have been undertaken. In order to justify this endorsement a number of authors advocate empirical evaluation of collaborative planning practice to determine whether collaborative approaches can deliver on their proposed benefits (see Yaffee & Wondolleck, 2003; Bradshaw, 2003; Selin et al., 2000; Buchy & Race, 2001; Bellamy et al., 1999).

Evaluation of practice can serve a number of functions. Innes & Booher (1999: 414) identify that there is no clear idea of what can be expected from collaborative planning practice, how it compares to other decision-making approaches, and where collaborative planning practice may be most applicable. A lack of evaluation has meant that practitioners have had little guidance and have had to rely on intuition when developing and implementing collaborative planning practice (Innes & Booher, 1999: 414). Evaluation can help practitioners learn from previous examples (Innes & Booher, 1999) and can help to adaptively manage current examples (Yaffee & Wollondeck, 2003).

Evaluations of collaborative planning practice can also help to answer the bigger questions surrounding their effectiveness. These questions, identified by Conley & Moote (2003: 374), include: In what contexts should collaborative planning practice be implemented? What are the potential limitations of collaborative approaches to regional natural resource management? And: What procedural theory guide and shape collaborative approaches to regional natural resource management? These are fundamental questions that need to be answered because 'it is time to decide whether to encourage this model of planning and policy making' (Innes & Booher, 1999: 414).

To answer these questions we need to determine how decisions are made within collaborative approaches, what the key influences are that shape decisions, and whether collaborative approaches encourage integrated management. By comparing this understanding of collaborative planning

practice with communicative planning theory it can be determined whether this theory represents an appropriate procedural theory to advance IREM (see Conley & Moote, 2003; Chess, 2000; Chess, Hance & Gibson, 2000; Elliot & Stiftel, 2002).

Developing criteria to evaluate collaborative planning practice has proven difficult and resulted in much debate. Conley & Moote (2003) identify that theoretical discussions of how evaluation should be undertaken has centred on three questions:

- Who should evaluate?
- How should evaluation take place? and,
- What should be evaluated?

2.5.1 Who should evaluate?

On the question of who should be evaluating multi-stakeholder approaches Conley & Moote (2003) identify two dichotomous views that are articulated in the literature:

- that the focus should be on striving for objectivity and the evaluation should be undertaken by a “neutral” or outside third party; and
- that the complexity of information needed for evaluation necessitates a researcher to be embedded within the collaborative approach.

Ultimately, the decision depends on paradigmatic and epistemological choices of the researcher. Both approaches can contribute valuable understanding and information, as long as the paradigmatic and epistemological lens of the researcher is clearly identified and the way in which it has influenced the way in which findings have been interpreted.

2.5.2 How should evaluation take place?

Conley & Moote (2003) identify that there are three alternatives approaches when evaluating collaborative planning practice:

1. Comparing the outcomes of a collaborative decision-making process against its goals;
 2. Comparing multiple efforts; and
 3. Comparing practice to theory
1. *Comparing the outcomes of a collaborative decision-making process against its goals*

This evaluation technique compares the stated goals with the actual outcomes from collaborative planning practice. Conley & Moote (2003: 377-378) identify a number of limitations of this technique:

First, they [goal/outcome comparisons] do not assess the appropriateness of the goals and objectives themselves, the assumptions behind them, or the process used to define them. Second, goal evaluation requires that a collaborative effort have clearly defined and uncontested goals, which may not always be the case, especially in efforts that bring together diverse interests. ... Third, goals-based evaluations run the risk of missing unanticipated (but important) outcomes ...

Goal/outcome comparisons can demonstrate whether a collaborative approach remains “on target”, but not whether this target is an appropriate one, or if a collaborative approach is most appropriate for a given context.

2. Comparing multiple efforts

Comparing multiple examples of collaborative approaches allows researchers to identify how collaborative approaches perform in particular social, ecological, and institutional contexts. This information can assist policy-makers in deciding how to design an approach most likely to facilitate collaboration within a given context (Conley & Moote, 2003: 378). However, this approach does not allow the comparison of collaborative approaches to other models of decision-making. As a result, evaluation of this kind could demonstrate what *type* of collaborative approaches would be appropriate for a specific context, but not whether another approach to planning and management would be more appropriate.

3. Comparing practice to theory

Conley & Moote (2003: 378) identify that theories can be used to evaluate collaborative planning practice in an inductive or deductive way. Adopting an inductive approach, the outcomes of planning and management practice can be compared to the theoretical outcomes predicted by communicative planning theory. This approach reflects the goal/outcome evaluation in that the theorised outcomes become the goals, and practice is evaluated as to whether it achieves them. Embedded within this evaluation technique is the assumption that positive outcomes will result if practice is consistent with theory, a contestable proposition (Conley & Moote, 2003: 378).

Alternatively, a deductive approach to evaluation can be used to test theories, or build on or construct new theories, by comparing theoretical predictions about how outcomes are achieved with the actual processes by which they are achieved. This research can form the basis for developing causal theory to explain actual outcomes (Conley & Moote, 2003: 379). The focus of this research is on identifying whether collaborative planning practice advances IREM. This focus necessitates a theory/practice comparative approach to identify whether implementation of the National Action Plan within the Condamine Catchment (collaborative planning practice) advances the substantive objectives of IREM.

2.5.3 What should be the focus of evaluation?

Once a theory/practice comparative approach has been chosen as the most appropriate evaluative approach to answer the research question it is necessary to identify how evaluation can be put into action. The literature identifies two elements of practice that can become the focus of evaluation (see Innes & Booher, 1999; Chess, 2000; Conley & Moote, 2003), including:

- Procedural aspects; and
- Tangible outcomes.

While these two alternatives exist, attention is typically focused on evaluation of the procedural aspects (Selin et al., 2000; McGuirk, 2001). This focus has occurred for a number of reasons. Measuring tangible outcomes typically involves comparing predicted or desired outcomes with actual outcomes (Conley & Moote, 2003: 379). Program outcomes, especially biophysical ones, take many years to identify, making it difficult to draw direct causal links to them (Conley & Moote, 2003: 379; Selin et al., 2000: 737). In response, evaluations have tended to focus on evaluating the procedural aspects of collaborative approaches, using decision-making processes as indicators of what shape the outcomes may represent. This represents the most appropriate approach to evaluate collaborative planning practice.

Process focused evaluations have typically marginalised the broader contextual or structural features within which collaborative processes are embedded (Selin et al., 2000; McGuirk, 2001). Evaluation of collaborative planning practice needs to include analysis of the broader institutional and political structures that collaborative processes are embedded in (McGuirk, 2001: 200). As yet, no

approach to evaluation has been developed that adequately addresses these issues.

Evaluation requires some criteria or framework. To learn from and build on previous attempts at evaluation, a review of the collaborative planning evaluative literature was undertaken (see Appendix B). This review reveals that a number of authors have sought to develop evaluative criteria to assess collaborative models of decision-making (e.g. Frame, Gundun & Day 2004; Foster-Fishman et al. 2001; Innes & Booher 1999; Webler 1995). These evaluative criteria are diverse in nature, and do not represent a unified framework for evaluation. A number of key observations emerge from this investigation into the empirical literature, including:

- **There were no examples of goal/outcome evaluations identified**

For reasons previously discussed (see section 2.5) goal/outcome evaluations are difficult to undertake in resource and environmental management settings. Instead, all attempts at evaluation focus on the procedural aspects of collaborative approaches.

- **Many of the evaluations had no stated evaluative criteria**

Many of the case studies did not use (or at least did not identify) *any* criteria for evaluation. These case studies fell into two categories. Firstly, there were a number of comparative case studies. In these examples criteria based on either the results of other case studies, or the theoretical underpinnings of collaborative planning, was alluded to, but not stated. Secondly, many of the examples that did not use evaluative criteria, were inductive in nature, and sought to identify characteristics that either impeded or facilitated collaboration.

- **Evaluations that utilised a stated criteria predominately used Habermas's theoretical notion of the "ideal speech situation" as the basis of this criteria**

These evaluations were focused on determining whether Habermas's "ideal speech situation" (see Section 2.4) were evident or not. Habermas's concept of the "ideal speech situation" is only one aspect of the theory underpinning collaborative planning practice. It focuses on the process of decision-making and, defined as the time when stakeholders come together ('sit around the table') to make decisions. In natural resource management contexts there are many forces shaping outcomes (Yaffee, 1998). These forces exert themselves

before, during and after stakeholders come together to make decisions and are not adequately understood when evaluation concentrates on the time when stakeholders 'sit around the table'. The focus on the "ideal speech situation" is therefore too narrow a criterion when trying to identify and understand the many political, economic, social, and biophysical forces shaping decisions.

The diverse nature of the many approaches to evaluation identified within this review means that accurate conclusions cannot be drawn from the literature. Investigation into collaborative planning practice and the theory that underpins it requires further empirical research, including the development of more appropriate evaluative criteria.

2.6 An evaluative framework

The review of the theoretical literature demonstrated that both external forces (institutional arrangements and wider external forces such as global economic forces) and the characteristics of participant stakeholders have a significant influence in shaping outcomes from collaborative planning practice (see section 2.4). This argument was supported by the empirical literature (see Appendix B), which identified the significant role that these forces played in shaping the decisions from collaborative planning practice. The relationship between these forces and the influence they have in shaping decisions is demonstrated in Figure 2.3.

This thesis contends that the critical analysis and evaluation of collaborative planning practice has typically concentrated on how stakeholders interact when making decisions (i.e. when stakeholders are "sitting at the table"). The influence that external forces and stakeholder characteristics have over decisions and outcomes has not received sufficient attention.

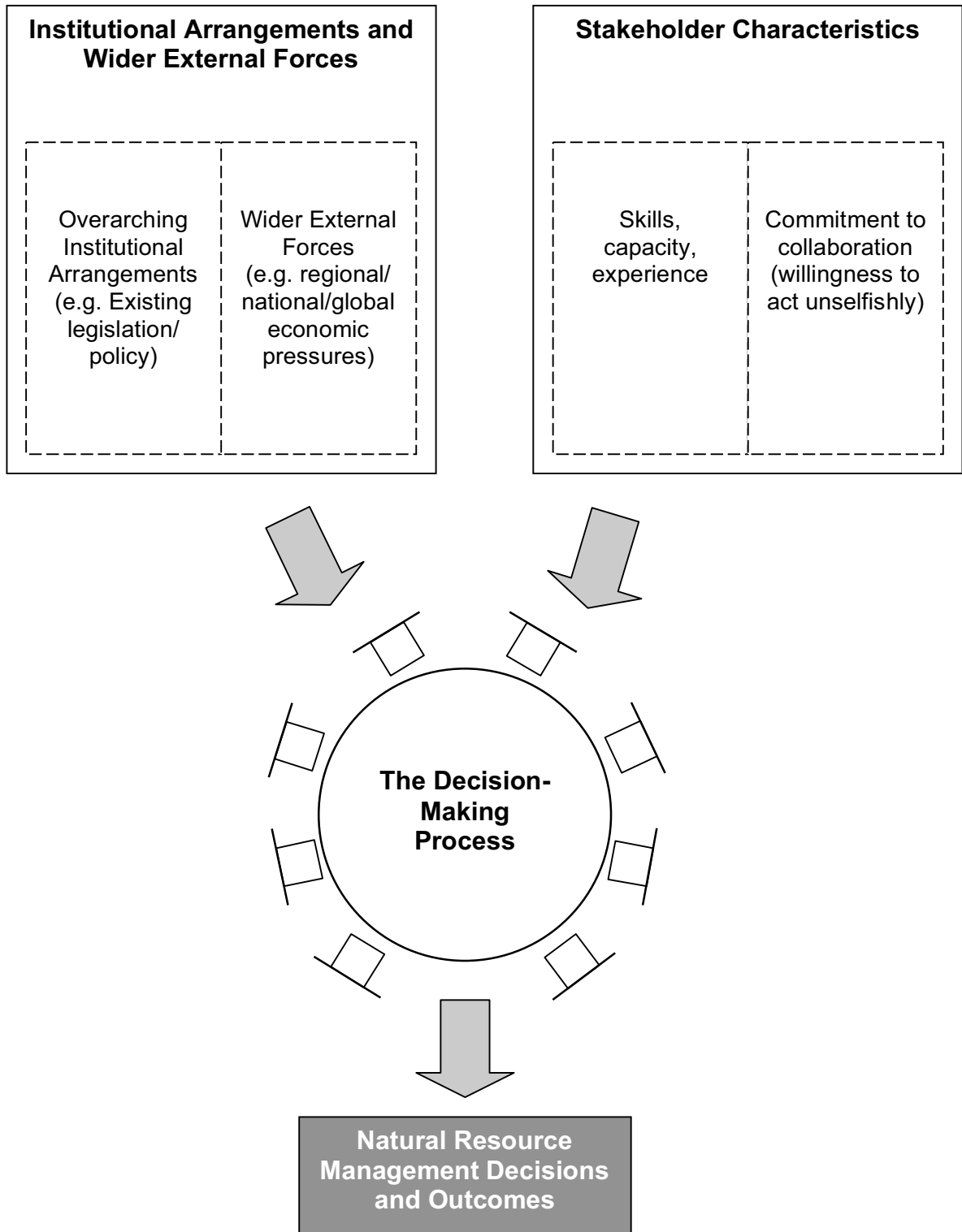


Figure 2.2: Relationship between the key forces shaping collaborative natural resource management decisions and outcomes

Decision-making does not take place in a value-free environment. External pressures, and the characteristics of stakeholders that determine how they react to these pressures, have a significant influence over how stakeholders interact, communicate and make decisions. Evaluative criteria must focus on more than *how* stakeholders interact when making decisions and identify *why* they act in this way. Only then can we understand how decisions are shaped and why these decisions do or do not advance IREM.

By integrating the findings of the empirical (Appendix B) and theoretical (section 2.3-2.4) literature review a number of forces influential in shaping decisions and outcomes within collaborative planning practice can be identified. As Figure 2.3 demonstrates, these forces exert pressure on decision-making from different levels (e.g. the institutional and external level, from individual stakeholders and from the decision-making process itself). Yaffee (1998: 300) identifies that within a collaborative approach all forces that influence decision-making and action can be defined as either centrifugal or centripetal. When applied in this context, centrifugal forces are those that lead stakeholders away from IREM. Centripetal forces foster IREM. This concept is represented schematically as Figure 2.3.

Using the substantive objectives of IREM as a comparative framework, the forces identified through a review of the empirical (see Appendix B) and theoretical literature (see section 2.3-2.4) shaping decisions and outcomes within collaborative approaches can be characterised as those that encourage or discourage IREM decisions and actions (see Table 2.3). This table identifies the centripetal forces that facilitate IREM.

The presence of these centripetal forces within a collaborative approach indicates that stakeholders are pursuing IREM objectives. The absence of these forces within a collaborative approach to natural resource management indicates a failure to pursue such objectives. Table 2.3 also identifies a series of investigative questions that, when applied to collaborative planning practice, are designed to reveal whether these centripetal are at play and the degree to which these forces influence decision-making.

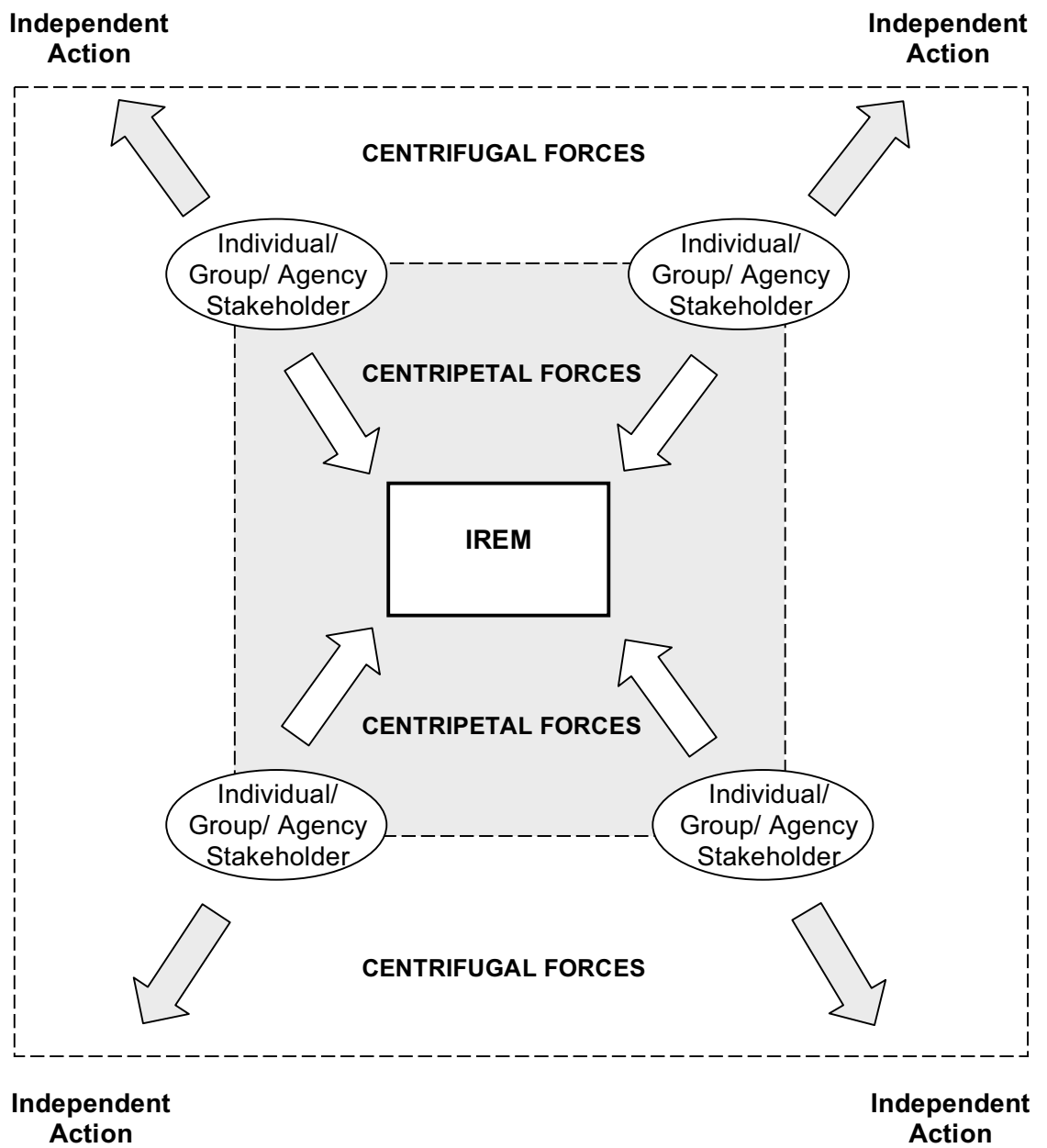


Figure 2.3: IREM is a balance between centrifugal and centripetal forces. (Adapted from Yaffee, 1998: 304)

Table 2.4: Indicators of IREM and the questions necessary to identify their presence/absence.

Substantive Objectives of IREM	Centripetal Forces (Indicators of IREM)	Investigative questions to identify influential forces
Institutional/wider external forces		
Holistic	<p>Economic, social, political and biophysical pressures encourage integrated management (see Buchy & Race 2001; Yaffee 1998)</p> <p>Existing laws and policies support the aims of the management approach (see Conley & Mooto 2003; Kapoor 2001; Margerum 1999a; Yaffee, 1998)</p> <p>Stakeholder roles & responsibilities are clearly defined (see Buchy & Race 2001; Margerum & Born 2000; Selin & Chavez 1995)</p> <p>Institutions, organisations and agendas are adaptive and able to change as the collaborative process matures (see Brown 2002; Buchy & Race 2001; Curtis & Lockwood 2000)</p> <p>Stakeholders are involved or have control over each stage of the policy cycle (e.g. design, implementation, monitoring, evaluation) (see Brown 2002; Petts 2001; Kapoor 2001; Mooto et al. 1997)</p> <p>Stakeholders are provided time to develop relationships, investigate variables and critically examine issues before decisions have to be made (see Kapoor 2001; Buch & Race 2001)</p> <p>Stakeholders are provided significant resources to implement decisions (see Foster-Fishman et al. 2001; Margerum 1999a)</p>	<p>What are the significant economic, social, political, cultural and biophysical issues for the community/region? Do these issues affect resource management?</p> <p>Do existing institutional arrangements support integrated management?</p> <p>Are the roles and responsibilities of stakeholders clearly defined?</p> <p>Does the mandate given to stakeholders allow adaptive management? Can the focus of the collaborative planning process change to suit emerging and changing issues?</p> <p>Do stakeholders have control over each stage of the policy cycle (e.g. design, implementation, monitoring, evaluation)?</p> <p>Are stakeholders provided enough time to develop relationships, share perspectives, and critically examine issues before decisions have to be made?</p> <p>Are stakeholders provided sufficient resources to implement decisions?</p>
Interconnected	<p>Focus on understanding the relationships between variable, how components of the system affect each other</p>	

Table 2.4: Indicators of IREM and the questions necessary to identify their presence/absence.

Substantive Objectives of IREM	Centripetal Forces (Indicators of IREM)	Investigative questions to identify influential forces
<p>Adopt a broad management approach, not a narrow single issue approach</p> <p>Share information and work together to develop a shared understanding of the natural system</p>	<p>Stakeholder characteristics</p> <p>Stakeholders possess the skills/ capacity/ experience to contribute to resource policy development (see Foster-Fishman et al. 2001; Forester 1999; Margerum 1999a)</p> <p>Stakeholders are committed to pursuing collaborative action and support and facilitate collaborative decision-making (see Margerum 2002; Buchy & Race 2001; Foster-Fishman et al. 2001; Margerum 1999b)</p> <p>Stakeholders recognise, value and listen to other stakeholders and search for opportunities for agreement (see Parkins 2002; Polanyi 2002; Petts 2001; Healey 1992)</p> <p>Stakeholders interact and communicate with each other in an open, trusting manner (see Margerum 1999a; Innes 1996; Forester 1989)</p>	<p>Do all stakeholders possess the skills, capacity or experience to contribute to resource policy development?</p> <p>Are all stakeholders committed to work in collaboration with others?</p> <p>Do all stakeholders support and facilitate the collaborative decision-making process?</p> <p>Do stakeholders communicate/interact with each other in an open and honest manner? Do the stakeholders demonstrate respect and trust for each other?</p>
<p>Goal Oriented</p> <p>Have clear, focused and agreed goals to guide action</p> <p>Develop a shared understanding of resource issues, problems and solutions</p> <p>All stakeholders commit to address problems collaboratively</p>	<p>The decision-making process</p> <p>No stakeholders are marginalised from the decision-making process (see Conley & Mooto 2003, Margerum 2002; 1999a; Polanyi 2001; Buchy & Race 2001; Petts 2001)</p> <p>Problems are clearly defined and decisions are made using clearly defined and agreed criteria (see Margerum 1999; Yaffee 1998; Selin & Chavez 1995)</p> <p>The decision-making process is open, transparent and accountable</p>	<p>Are the interests of all key stakeholders represented in the decision-making process?</p> <p>Are clear criteria applied when making decisions? If so, how was it developed? Does any interest hold more weight in criteria than others?</p> <p>Is the decision-making process open, accessible and transparent?</p>

Table 2.4: Indicators of IREM and the questions necessary to identify their presence/absence.

Substantive Objectives of IREM	Centripetal Forces (Indicators of IREM)	Investigative questions to identify influential forces
Strategic	(see Conley & Mootte; Petts 2001)	Are temporal (e.g. a timeline for action) as well as spatial boundaries defined? How do these boundaries affect decision making?
Implement targeted action to achieve identified goals	The decision-making process is supported by clear, focused and realistic goals that are shared by all participants' (see Conley & Mootte 2003; Foster-Fishman et al. 2001; Buchy & Race 2001; Margerum 1999a; Yaffee 1998)	Is the decision-making process supported by clear, focused and realistic goals that are shared by all participants? Do these goals provide advantage for any particular stakeholder's interest?
Develop a clear and agreed idea of the desired outcomes	Understanding, knowledge and information is produced through a process of mutual investigation and learning (see Parkins 2002; Brown 2002; Foster-Fishman et al. 2001; Petts 2001; Forester 1999; Healey 1997; 1992)	Is understanding and knowledge produced through mutual enquiry and learning, or is it imposed upon stakeholders?
Make decisions using a clear and agreed decision criteria	Stakeholders share information (Parkins 2002; Petts 2001; Margerum 1999b; Innes 1995)	Do all stakeholders have access to all of the pertinent information?
	Opportunities are provided for public participation and these results used to inform decisions (see Conley & Mootte 2003; Margerum 1999a)	Do decisions include the interests of wider society? Are opportunities provided for public participation in the decision-making process?
	All opinions and perspectives of participant stakeholders are heard before decision-making takes place (see Conley & Mootte 2003; Margerum 2002; Innes 1996)	How are decisions reached? Are any stakeholders marginalised from the decision-making process?

The concept of the centrifugal and centripetal forces is drawn from Yaffee (1998). All content remains the work of the author.

Political, social, economic and biophysical conditions are different for each natural resource issue and each geographical area. Forces such as external pressures and stakeholder characteristics are context sensitive. In the diversity of contexts in which collaborative planning practice is implemented prescriptive evaluative criteria will not have universal applicability (Conley & Moote, 2003: 377). Evaluative criteria should be adaptive and designed to pose questions that, when answered, can be used to identify the forces shaping decisions and outcomes within any collaborative approach. By drawing on the investigative questions from Table 2.3 an evaluative framework is presented that can be applied to better understand collaborative planning practice (Figure 2.4).

Evaluating collaborative planning practice against this framework provides researchers and practitioners the opportunity to achieve four important aims. Firstly, this evaluative framework provides a tool to the context sensitive forces that shape decisions and outcomes. Secondly, the evaluative framework identifies whether IREM is being advanced by the collaborative approach to management. Thirdly, the framework enables the researcher to identify actions that can be taken to improve the implementation of natural resource management within an existing collaborative approach. Finally, the evaluative framework enables the researcher to critically engage with the theory underpinning collaborative approaches to natural resource management.

Examining collaborative planning practice will improve understanding of how decisions and outcomes are produced, and how to encourage collaborative action. It will help to identify which contexts these approaches may be expected to be successful, and where they should not be applied⁵. Comparison of how stakeholders act, react and interact in practice with that predicted by communicative planning theory it can be determined whether this theory accurately explains and contends with the key forces shaping decision and outcomes from collaborative planning practice. Such a comparison contributes understanding necessary to determine whether this theory is appropriate to guide the implementation of regional natural resource management.

⁵ For a discussion of possible alternatives to collaborative planning practice to achieve integrated management see Hooper *et al.* (1999: 750)

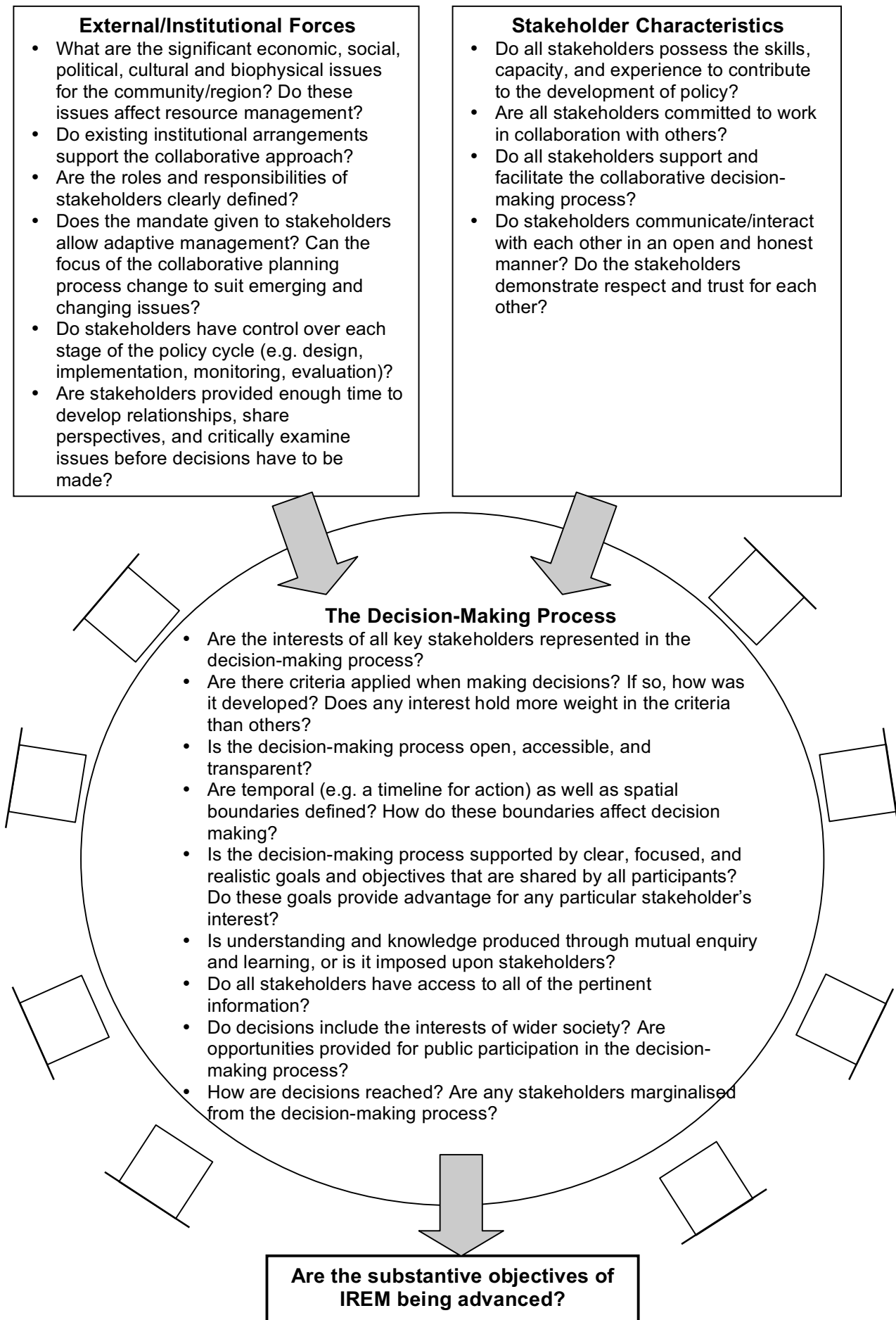


Figure 2.4: Evaluative criteria conceptual diagram: Understanding the forces shaping decisions and outcomes from collaborative planning practice (drawn from Table 2.4)

2.7 Conclusion

This review of the literature demonstrates that collaborative approaches have been advanced in the natural resource management literature as a way to improve the implementation of natural resource management. Currently, the dominant theory underpinning the collaborative planning practice is largely drawn from the planning literature and is described under the term communicative planning theory. Communicative planning theory remains untested. It is uncertain whether communicative planning theory presents an appropriate procedural theory to advance IREM. In-depth evaluation of collaborative planning practice is required to identify the key forces that decisions and outcomes, and to determine whether communicative planning theory adequately addresses these forces.

Attempts at evaluating collaborative planning practice have been diverse, inconsistent and fragmented. The results of these evaluations have been unable to be compared because they have not applied consistent evaluative criteria and have not adequately described the local and institutional contexts in which these approaches have been implemented. After reviewing the empirical and theoretical literature, an evaluative framework has been presented to identify and understand the institutional arrangements, participant characteristics and the process by which decisions are made that shape outcomes from collaborative planning practices.

This evaluative framework serves two purposes. Firstly, it provides greater understanding of how natural resource management decisions are made within multi-stakeholder settings. Secondly, the framework provides a foundation for theory-outcome comparisons enabling theory to be evaluated against practice. Such an evaluation contributes understanding necessary to determine whether communicative planning theory is appropriate to underpin the implementation of regional natural resource management. The following chapter details how this evaluative framework is best applied to evaluate the case study of the implementation of the National Action Plan in the Condamine Catchment.

Chapter Three

Research approach: Examining collaborative approaches to natural resource management

3.1 Introduction

The research approach described within this chapter is focused on developing grounded theory relating to collaborative approaches to natural resource management. The research strategy selected to achieve this aim was a single case study of the implementation of the National Action Plan in the Condamine Catchment. This chapter describes the research approach adopted within this thesis, detailing the reasons behind the selection of the research strategy, data collection techniques, and procedures for analysis. Also, this chapter situates the researcher in relation to the research problem, and describes the opportunities and limitations of the research approach.

To detail the research approach used within this thesis, this chapter is structured around five key sections:

1. the paradigm underpinning this research is identified and discussed;
2. the research strategy adopted to undertake this research is described;
3. the primary data collection technique (interviews) is described and justified;
4. the secondary data collection techniques are described and justified; and,
5. the opportunities and limitations presented by this research approach are discussed.

3.2 The research paradigm

Given the range of epistemological and methodological choices when conducting research, there are many possible paths the researcher can follow. While the approach adopted by a researcher is guided by a thorough understanding of how research is undertaken, and types of methodologies and their relative advantages and disadvantages, it is also influenced by the researcher's interests, background, and values. One of the first choices a

researcher must make is identifying the paradigm that underpins their research. It is an important choice as the paradigm influences how the research will be undertaken.

Within the methodological literature, there has been movement away from the traditional positivist paradigm and its conception of “absolute truth”, objectivity, and the ability of the researcher to predict and control phenomena (Guba, 1990). Paradigms, such as post-positivism, critical theory, and constructivism, reflect the post-modern turn in social sciences in that they acknowledge the values of the researcher (Lincoln & Guba, 2000). In this thesis the researcher addresses the research question from a post-positivist perspective.

The focus of this research is on building grounded theory relating to collaborative approaches to natural resource management. The researcher’s task when developing grounded theory is to understand what is happening within a given situation. Developing theory relies on building interpretation of practice through engaging with and comparing multiple sources of data (Dick, 2000). Through constant comparison, patterns and relationships emerge. These findings can be described as emergent theory (Glaser, 1992). This represents the key concept within grounded theory, and is what differentiates it from other research. Grounded theory is explicitly emergent. It does not test a hypothesis but seeks to discover the theory implicit within the data (Dick, 2000).

In this thesis, the implementation of the National Action Plan was examined to determine how stakeholders acted, and how decisions were made, within a collaborative approach in practice. These findings were then used to inform, question and extend existing theory. This is an approach consistent with the theoretical underpinnings of grounded theory (see Glaser & Strauss, 1967). Developing grounded theory requires analysis of multiple sources of information, coding of data, searching for patterns and relationships within the data and comparison of results to detect emerging patterns. All of these aspects are addressed by the research strategy and techniques used in this research, and are discussed in sections 3.3, 3.4, and 3.5.

Reflecting the post-modern influence on the development of research paradigms, the researcher recognises that values do enter into inquiry, particularly through the multitude of information gathering and analysis decisions that one faces when undertaking research. The values of the researcher can

also influence the direction of the research through decisions relating to not only how information is collected, but how it is analysed. It is important the researcher presents his or her values clearly, so that the researcher and reader can continually evaluate the research in relation to them (Guba, 1990). To allow the reader to evaluate the decisions made in the development of this thesis, it is important to identify how the research topic came about.

The researcher's interest in the thesis topic developed through previous investigations into the rise of collaborative processes to address regional natural resource management in Queensland, Australia (e.g. Regional Forestry Management, Regional Vegetation Management, and Water Resource Planning). The contentious nature of outcomes from these processes, and the power struggles that characterised their development, led the researcher to question how decisions were reached within a collaborative approach, and how these decisions affected resource management. Research into the implementation of the National Action Plan provided a unique opportunity to answer these questions. Studying implementation of this plan from the beginning provided first-hand knowledge regarding the development of the decision-making body and how decisions were shaped.

Another way in which the researcher's values can set the direction of the research is by the perspective through which the researcher views certain phenomena. In relation to policy-making, the researcher adopted an institutionalist perspective (Sharp & Richardson, 2001). From this standpoint, the institutional structures and dynamics of social interactions were believed to have an implicit influence on the community's capacity to undertake regional natural resource management. In short, natural resource policy outcomes are the result of the interactions between those stakeholders charged with making decisions, and the political and institutional framework that determines how these interactions take place.

Within the policy-making process the researcher adopted a Foucauldian view of power and politics, whereby natural resource management outcomes are conceptualised as being shaped by the power struggles between competing interests (see Flyvbjerg, 1998; Sharp & Richardson, 2001). By combining the institutionalist and Foucauldian perspectives of policy-making, a clear insight is provided into how the researcher views natural resource policy-making under the National Action Plan in the Condamine Catchment. Natural resource policy

is developed by those stakeholders engaged in the decision-making process under the National Action Plan. The National Action Plan, as well as other government policies and legislation, provide the rules that govern how these stakeholders interact and make decisions. Outcomes from the process are believed to be products of these stakeholder interactions, which are (partially) shaped by the political and institutional framework in which they operate.

The perspectives adopted within this research have consequences for the research design. In particular, the focus of the research becomes an examination of decision-making and the forces that shape decisions under the National Action Plan. The aim of this research is to identify whether collaborative planning practice advances IREM objectives. Answering this aim requires a hermeneutic analysis of the utterances, policy documents and actions of stakeholders to examine stakeholders' competing interests, and why some come to dominate over others (Hartley, 1994).

3.3 Research strategy: the case study approach

In order to improve understanding of collaborative approaches to natural resource management in practice, a case study approach was adopted. The case-study adopted for this research was the implementation of the National Action Plan in the Condamine Catchment. The focus for the research centred on the network of stakeholders engaged in implementing the National Action Plan. These stakeholders represent a diversity of interests within the catchment; they were drawn together because of their mutual interest in natural resource management.

This interest in natural resource management, however, may be for social, economic, environmental, cultural or political reasons. While the core members of this network were easily defined at the outset, membership was dynamic. Throughout the study, stakeholders moved in and out of the network depending on the interests of the individual and the agency/organisation they represented, current issues facing the network, changes in employment, and internal politics.

Rather than being a methodological choice, a case study is a research *strategy* used to investigate phenomena within a real-life context (Yin, 1984; Hartley, 1994). A case study typically attempts to achieve a holistic understanding of a phenomenon as it occurs within a bounded system through an in-depth

investigation, utilising multiple data sources (Yin, 1984; Orum, Feagin & Sjoberg, 1991; Stake, 1998). The in-depth nature of case study enquiry provides the researcher with a level of understanding of decision-making processes and stakeholder interactions not possible through other strategies, such as surveys (Hartley, 1994). It is this detailed nature of enquiry that makes case studies ideal for investigating and refining emergent theory (Hartley 1994; Stake 1998).

Case studies, as a research strategy, have been criticised in the literature. Criticism has typically centred on two main areas. Firstly, case study research has been criticised for its lack of rigor (Yin, 1984: 21). This stems from the iterative nature of case study enquiry and the need for researchers to make decisions about how information is collected and what constitutes evidence. This criticism revolves around the issues of repeatability, and the opportunity for bias in reporting methods and conclusions (Yin, 1984; Orum et al., 1991; Bailey et al., 1999). In response to this criticism, qualitative researchers have sought to instil more rigour in case study design and research methods (see Yin, 1984; Stake, 1998; Bailey et al., 1999). This has included: making methods of information gathering and drawing conclusions more explicit and open to evaluation (Yin, 1984; Bailey et al., 1999), using multiple sources of evidence (triangulation) (Yin, 1984; Stake, 1998), and developing a research design that establishes a chain of evidence (Yin, 1984: 40).

Secondly, case studies have been criticised over their limited basis for scientific generalisation (Yin, 1984). A case study represents a single instance of a phenomenon, and this limits the degree to which the researcher can generalise findings to other cases (Orum et al., 1991). Embedded in this criticism is the view that case study research should seek statistical generalisation to explain or predict phenomena in other populations. The worth of case study research, however, lies not in its ability for statistical generalisation, but for its ability for what Yin (1984: 21) describes as 'analytic generalisation', where the researcher 'is striving to generalise a particular set of results to some broader theory'. The aim of case study research then, is to compare empirical results to previously developed theory (Yin, 1984: 38). The strength of case studies is their ability to extend or refine theory (Hartley, 1994).

The case study, as a research strategy, was considered appropriate for this research for four reasons. Firstly, analysis of collaborative planning practice has been focused on normative perspectives, showcasing best practice examples of

successful approaches. The literature concerning communicative planning theory has been largely superficial with little reliance on empirical research (Elliott & Stiftel, 2002). For this reason this research was focused on providing insight into, and refining, communicative planning theory by examining its application to regional natural resource management. This comes under the definition of what Stake (1998: 88) describes as an instrumental case study, a process that uses a case study to expand understanding of a particular phenomenon (in this case collaborative approaches to natural resource management).

Secondly, an important aspect of the research involved gaining an understanding of decision-making processes. The case study approach encourages a more holistic understanding of a phenomenon by obtaining information over a period of time using multiple research methods (Yin, 1984; Orum et al., 1991). This permits the researcher greater potential to understand complex stakeholder interrelationships, the meaning behind social action, and the influence they have in shaping decisions (Orum et al., 1991).

Thirdly, case studies take into account the context in which the phenomenon being studied occurs (Hartley, 1994). Stakeholder behaviour, decisions and policy outcomes can only be understood in the context of broader influences, such as the institutional arrangements and historical forces operating within the system. A case study presents an ideal strategy to examine collaborative approaches to natural resource management. Finally, to study how stakeholder attitudes, perceptions, interests and relationships shape decisions, it is important to develop trust and rapport with stakeholders. Being involved in a case study provides this opportunity. It also encourages gaining an understanding of the complex policy-making process at play, and can improve the quality of information uncovered (Browne, 1999). Such a research approach is widely accepted in the planning and natural resource management literature, particularly when building grounded theory (e.g. Mitchell & Hollick, 1993; Michaels, 1999; McGuirk, 2001; Brown, 2002 among others).

When utilising a case-study research strategy the researcher is faced with the decision to utilize a multiple or a single case study design. The advantage of utilising multiple case studies is that they provide the researcher opportunity to compare findings and increase the opportunity for generalisation (Yin, 1984). A single case-study research approach has limited external validity, restricting the

ability to make generalisations from the research findings. However, a single case study can be more appropriate when confirming or challenging a theory (as this research does), and when the depth of information required to undertake the study cannot be replicated across multiple cases (Yin, 1994).

This research investigates decision-making within a single case study of a collaborative approach to natural resource management. A single case study methodology was determined to be the most appropriate because of the in-depth nature of the research. Institutional arrangements, historical stakeholder relations and stakeholder attitudes, interests and perceptions collectively shape decisions within collaborative processes. To understand and how these influences shape decisions required getting “inside” the decision-making process. This required developing trust, respect and a rapport with key stakeholders. Developing these relationships takes time. Unlocking decision-making processes takes time. The resource investment required by the researcher to achieve these aims was such that more than one case study could not be investigated. However, there is certainly an opportunity to apply the research approach developed within this thesis to other case studies.

In the research design, sacrificing external validity for depth of information was a conscious decision. As Chapter Two demonstrated, there is a lack of rich information concerning the implementation of regional natural resource management in multi-stakeholder settings in the literature. It is a deficiency this research contributes to filling. The contribution of this research is not that it provides a description or prediction of how stakeholders behave and interact in all multi-stakeholder approaches to natural resource management, but to provide detailed information about one such example contributing to the understanding of decision-making within regional natural resource management. This understanding can help and further refine the implementation of regional natural resource management in such settings, and is necessary to inform the research design of future multiple case-study comparisons.

3.4 Interviews and interviewing

Once the research strategy has been determined it is necessary to identify the techniques through which information will be collected. Deutscher (1968) identifies two techniques for investigating human behaviour through qualitative research: to ask questions and to observe behaviour. Taylor & Bogdan (1984)

identify that while no other method provides the detailed understanding that comes through engaging in participant observation, it is not practical or even possible in all situations. Further, participant observation offers little insight into the feelings, thoughts, intentions, or previous behaviour of participants (Patton, 1990). A more appropriate approach to investigate these aspects would be for the researcher to ask questions, typically through interviews.

In an attempt to gain greater insights than that available using a single technique, this research adopts a multi-method approach. Interviews were undertaken with stakeholders to gain an understanding of their interests, attitudes, perceptions, and a history of their interactions. Information was also compared/contrasted with that gathered through secondary data collection techniques, including review of the literature, (organisational) document analysis, participant observation and textual analysis of historical texts, newspapers and government debates and policies.

Interviews were adopted as a primary data collection technique for four key reasons:

- the structure of the Condamine Alliance as a private company meant that board meetings could be closed to the public. The Condamine Alliance chose to exclude all non-board members (including the researcher) from these meetings, excluding the researcher from the arena that would have provided the richest source of data for participant observation;
- interviews provided an appropriate forum to explore historical aspects of the case study, namely how previous institutional arrangements and stakeholder relations have influenced current patterns of interaction (see Patton, 1990; Jenkins, 1996);
- interviews were identified as the most suitable technique to investigate issues of stakeholder relationships and politics within the natural resource management network, the focus of the research (see Fontana & Frey, 1994; Jenkins, 1996); and
- the wide range of people and settings to be investigated, ranging from state government regional managers engaged in policy development to individual land managers, made participant observation across the entire network unworkable (see Taylor & Bogdan, 1984; Henderson, 1991).

While there are many advantages of the interview as a research technique it should not be selected as the primary tool for data collection without examining

its shortcomings. These need to be acknowledged, so that the researcher, in designing and conducting the interviews, can minimise their potential negative impact. Potential disadvantages include:

- interviews can be time consuming, raising questions about their efficiency in obtaining data (Henderson, 1991);
- interviews can result in the collection of biased information when there is a discrepancy between what people say and what they do or believe (Taylor & Bogdan, 1984; Henderson, 1991);
- interviewers can misunderstand or misinterpret participants' language (Taylor & Bogdan, 1984); and
- unlike participant observation, the interviewer relies exclusively on second-hand accounts from others (Taylor & Bogdan, 1984).

Another important consideration before undertaking interviews is that when conducting interviews, the researcher becomes the research tool (Taylor & Bogdan, 1984). The design of the interviews and the interview technique of the researcher influence the type and the quality of the data collected. For these reasons it is important to examine the interview approach utilised within this research.

3.4.1 Interview design

Fontana & Frey (1994) describe a number of interview types that can be used in data collection, including: face-to-face individual interviews, face-to-face group interviews, administering surveys, and telephone interviews. In deciding what approach is appropriate there are several considerations, including: the nature of the questions, number of participants, and access to participants. The aim of the interviews in this study was to examine decision-making processes, and to develop an understanding of the forces that shaped decisions. The interview process provided an avenue to determine stakeholder attitudes and perspectives, which aided in identifying areas of conflict and agreement between stakeholders. The interview process also helped to identify how changing institutional arrangements impacted on the roles and relationships of the stakeholders.

Given the personal and sometimes confidential nature of these issues it was decided that the most appropriate interview technique would be one that encourages the participant to speak honestly and openly with the researcher. Face-to-face interviews allowed the researcher and participant to establish a

dialogue, and encouraged the establishment of a relationship between the participant and the interviewer (see Taylor & Bogdan, 1984). When conducting face-to-face interviews, Dunn (2000) identifies three possible designs: structured, unstructured, and semi-structured.

Structured interviews aim to capture codable data in order to explain behaviour within prescribed categories (Fontana & Frey, 1994). They typically entail asking the same predetermined questions to all participants, worded in such a manner so that the responses can easily be categorised and compared with the results of other participants. This approach carries the assumption that the researcher knows what the important questions are, and what the main responses will be (Lofland, 1971). Fontana & Frey (1994) point out that this design often produces responses from participants based on subjective rationality (thus providing insight into their decision-making processes).

Alternatively, unstructured interviews constitute an attempt to understand the complex behaviour without imposing prior categorisation that may limit the field of enquiry (Fontana & Frey, 1994). Unstructured interviews rely on the spontaneous generation of questions and the establishment of a strong rapport with participants (Patton, 1990). Lofland (1971) describes this flexible approach as being more akin to a process of information discovery, as opposed to the limited ability of structured interviews to generate new information. Unstructured interviews are typically used for life histories, or research that is more focused on exploration, rather than research that has a clearly defined research theme (Fontana & Frey, 1994).

Semi-structured interviews can be described as a hybrid of structured and unstructured interviews. They have an element of predetermined structure but maintain flexibility in the order and way the researcher raises issues (Dunn, 2000). A semi-structured approach presumes that there is a defined research theme, and a degree of common information that is sought from each participant (Patton, 1990). One of the strengths of this approach is that it provides this structure while allowing the researcher flexibility to develop questions and probes that are specific to each participant (Dunn, 2000).

A potential disadvantage of a flexible interview approach is the opportunity for bias (Patton, 1990). This arises because while all participants have common questions, participants may be asked them in different order, receive different

prompts, and even be asked extra questions. Different participants get different interviews, and this can result in some participants providing more comprehensive data than others (Patton, 1990). However, flexibility in interview structure can also be viewed as an advantage. Interviewers can alter the order and way questions are delivered in response to the characteristics of each individual participant. This can improve the quality of information obtained from participants that may at first appear uncooperative or who do not respond well to traditional interview techniques.

After weighing up the strengths and weaknesses, a semi-structured approach was selected as the most appropriate for this research. This approach reflected that there was a defined research theme, but allowed flexibility in the timing and manner questions were asked. This approach allowed questions to be developed prior to the interview, or spontaneously within the interview. This flexibility was particularly important given the diversity of participants, their different backgrounds, and the different types of knowledge that they brought to the research.

3.4.2 Identifying participants

There is no single way to go about selecting and gaining access to participants (see Fontana & Frey, 1994). While this provides the researcher freedom to develop an individual approach, the way in which the researcher presents themselves to participants can influence the participants attitude toward the research and can influence the type of information they provide (Fontana & Frey, 1994). The approach used in this research was designed to obtain interviews with all key stakeholders without alienating or antagonising participants.

The aim in selecting participants was to achieve a cross section of actors, expertise, and perspectives (see Taylor & Bogdan, 1984). Potential participants were selected in a number of different ways. The primary selection method was through an analysis of the network of natural resource management stakeholders. Through an analysis of the implementation arrangements of the National Action Plan (see Chapter Four, Section 4.3) key organisational stakeholders were identified. These organisational stakeholders held a key role in developing natural resource management policy, Regional NRM Plans and

implementation within the Condamine Catchment under the National Action Plan.

Individual stakeholders (representatives of these organisations) were identified by obtaining membership details (through public documents such as: newspapers, natural resource management newsletters, and minutes of meetings) of these key stakeholder organisations. Those stakeholders holding key positions of influence over decisions concerning the implementation of the National Action Plan were specifically identified as potential participants and contacted, and particular focus was placed on gaining representation from all key stakeholder organisations involved in implementing the National Action Plan. Secondary selection methods used to augment this approach included:

- the “snowball” process, whereby key informants were asked who would be important to interview (see Taylor & Bogdan, 1984). Each participant was also asked at the completion of the interview whether they knew of any stakeholders they thought it would be important to interview for the research; and
- by attending natural resource management meetings and identifying individuals that were observed to have a key influence or valuable knowledge about the issues being investigated.

These participant selection techniques allowed the researcher to identify, contact and interview representatives from all key stakeholder organisations involved in implementing the National Action Plan. Interviews were conducted with representatives from State government agencies, local government Mayors, non-government organisations, community groups and representatives of the key factions within the Condamine Alliance. The representativeness of these stakeholders, and the position they hold within the natural resource management network of the Condamine Catchment are identified in Table 3.1. The importance of the relationships between these stakeholders, and the key role the organisations that they represent play in implementing the National Action Plan, is further illustrated in Chapter Four, specifically in Figure 4.3.

Table 3.1: List of participants and the position they hold within the natural resource management network

No.	Name	Position
1	Mr. Chris Hill	Planning Manager, South-west Region, Qld Environment Protection Agency.
2	Ms. Joan Meecham	Senior Natural Resource Management Planner, Qld Department of Local Government & Planning
3	Dr. Allan Dale	General Manager, Regional NRM Taskforce, Leadership and Support Team, Qld Department of Natural Resources & Mines
4	Mr. Greg Claydon	General Manager, Water Planning, Qld Department of Natural Resources & Mines
5	Mr. Peter Voller	Regional Vegetation Management Planning Co-ordinator, South-west Region, Qld Department of Natural Resources & Mines
6	Ms. Sandra Baxendell	Director for Regional Services, South Region, Qld Department of Primary Industries
7	Ms. Michelle Walker	Regional Manager, Planning, Qld Department of Natural Resources & Mines
8	Dr. Piet Filet	Strategic Environmental Officer, Toowoomba City Council; and Member, Technical Advisory Committee, Condamine Alliance
9	Ms. Sarah Moles	Wetlands Conservation Officer, WWF; Ex-coordinator, Toowoomba and Region Environment Council; and, Ex- Chair, Condamine Catchment Management Association
10	Cr. Dianne Thorley	EDRPAC Representative, Condamine Alliance; and Mayor, Toowoomba City Council
11	Mr. John Matthews	Executive Member, Condamine Catchment Management Association; and, Member, Queensland Murray-Darling Committee Executive
12	Mr. Royce Brown	Director, South-west Region, Qld Department of State Development; and, Ex- Chair, Condamine Alliance

13	Ms. Donna Moodie	Condamine Catchment Management Association representative, Condamine Alliance; and, Member, Condamine Catchment Management Association
14	Prof. Charlie Zammit	Member, Technical Advisory Committee, Condamine Alliance; and, Head, Land-use Research Centre, University of Southern Queensland
15	Mr. Andrew Drysdale	Executive Officer, Queensland Murray-Darling Committee
16	Dr. Simon Lott	Condamine Catchment Management Association Representative, Condamine Alliance; and, AgForce Representative, Condamine Catchment Management Association
17	Dr. Kathryn Galea	Chair, Condamine Alliance; Acting CEO, Condamine Alliance; and, Ex-member, Condamine Catchment Management Association
18	Mr. Michael Bradby	Team Leader, Regional NRM Taskforce, Regional Arrangements and Planning Team, Qld Department of Natural Resources & Mines
19	Mr. Ross Krebs	Regional Manager, Integrated Natural Resource Planning, Qld Department of Natural Resource & Mines
20	Ms. Tanya Stacpoole	Commonwealth Department of Environment and Heritage
21	Mr. David Curtis	Landcare Representative, Condamine Alliance
22	Cr. Bill McCutcheon	EDRPAG Representative, Condamine Alliance; and, Mayor, Chinchilla Shire Council
23	Cr. Paul Antonio	EDRPAC Representative, Condamine Alliance; and, Mayor, Millmerran Shire Council
24	Cr. Ron Bellingham	EDRPAC Representative, Condamine Alliance; and, Mayor, Warwick Shire Council
25	Mr. David Brown	Condamine Catchment Management Association Representative, Condamine Alliance; and, Chair, Condamine Catchment Management Association
26	Mr. Saint John Kent	Landcare Representative, Condamine Alliance

Potential participants were all contacted in a similar way. The protocol for contacting participants was as follows:

- An email was sent out to potential participants which introduced the researcher, outlined the research that was being conducted, and identified why they were a valuable person to interview. The researcher asked the potential participants to supply their contact details if they were interested in participating. The researcher also indicated that he would contact them over the next few days to discuss the research in more detail;
- The researcher telephoned respondents to discuss any questions they might have, to ask for their consent to participate, and to organise an appropriate time for the interview; and
- A few days before the interview, the researcher emailed a more detailed information sheet outlining the research, and the general themes that would arise in the interview. A consent form was also sent outlining ethical considerations such as: how data would be managed, how the respondents would be referred to in the thesis, and asking their approval in the information could be used in the thesis.

While this approach was developed in response to privacy and confidentiality requirements of the Condamine Alliance Board Members it proved to be advantageous. Participants employed in government (all three levels) proved to be difficult to contact by telephone. Typically, calls were not returned but emails were (usually) promptly responded to. Participants were also more ready to suggest other possible participants when they could provide a name, organisation, and email, but were unwilling to divulge further contact details citing the “sensitivity” of the issues and not wanting to “volunteer” someone else to be interviewed.

In only two cases did the researcher organise interviews in a way different to this approach. In both cases the researcher met the participants while attending natural resource management meetings, and in the course of conversation told them about the research and asked if they would like to participate. In both cases a telephone number was obtained, and the researcher called the participant the next day and organised a time to meet.

This approach to contacting participants reflects the focus of the research on organisations and individuals involved in formulating natural resource policy. Typically stakeholders in this sector are comfortable using email communication,

and indeed in almost all cases preferred to do so. This approach may not be appropriate in a study that did not focus on the same type of participants.

3.4.3 Conducting the interview

Patton (1990) identifies that the way a question is worded is one of the most important elements in determining how the participant will respond. A review of the literature reveals a number of important considerations in formulating questions. Questions should be open-ended, and not be worded in such a way as to lead participants towards a particular answer (see Lofland, 1971; Patton, 1990). They should be formulated with careful attention paid to language, as different terms mean different things to different people (Deutscher, 1968). Good questions should be clear and concise and should not convey any judgement or seek to elicit a particular response (Patton, 1990).

Interview questions were designed to inform Research Objective 4 (Section 1.3): to evaluate whether implementation of the collaborative approach to natural resource management initiated by the National Action Plan encourages the achievement of IREM objectives in the Condamine Catchment. The evaluative criteria described in Section 2.6 detailed a number of investigative questions to determine whether indicators of IREM are present/absent (Table 2.4). These questions were tailored to each participant within the Condamine Catchment. An example of the pool of questions generated for one participant is presented in Appendix C.

Dunn (2000: 56) identifies a variety of question types that can be included in the interview, including: descriptive questions, storytelling prompts, structural questions, opinion questions, and devil's advocate questions. As different types of questions stimulate different sorts of responses, Dunn (2000) argues that a good interview should contain a mix of question types. Interviews for this research were structured around four question types, which included: descriptive, storytelling, opinion, and structural. These types provided the right mix of questions to elicit background, attitudinal, and behaviour information required to address the research objectives.

In keeping with the nature of semi-structured interviews while an interview guide was used as a base, spontaneous questions and prompts were asked in addition to prepared questions to elicit further information and to explore new or interesting issues raised by participants (see Taylor & Bogdan, 1984; Dunn,

2000). The interview guide consisted of a predetermined set of questions that were designed to act as reminders of issues to cover. The interview guide ensures that the interviewer has carefully decided how best to use the limited time available in an interview situation (Patton, 1990). It also provided a “safety net” when the researcher could not spontaneously develop a follow up question (see Lofland, 1971). The aim of the interview guide was to provide structure for the interview, not to set a schedule or a questionnaire for it (e.g. Lofland, 1971). Maintaining flexibility in the interview allowed the responses of the interviewee to determine which question would follow. This enabled the researcher to follow leads and explore issues as the participant raised them (see Lofland, 1971; Dunn, 2000; Taylor & Bogdan, 1984; Jenkins, 1996).

When conducting the interviews the researcher followed the pyramid interviewing strategy (Dunn, 2000). In this approach, questions that are easy to answer (i.e. ones that require more description than reflection) are asked at the beginning of the interview. These questions typically related to participant’s roles or duties, and their involvement in a particular issue or process (Dunn, 2000). As the interview progressed more abstract and general questions were asked. The most sensitive questions were always asked towards the end of the interview, so as not to push the research agenda too early in the interview (see Taylor & Bogdan, 1984).

This approach provided an opportunity to establish a rapport with the participant before more sensitive issues were broached. It encouraged participants to become more open and discuss their opinions more readily (see Patton, 1990). Beginning the interview with background and experience questions also encouraged the participants to talk descriptively, providing context for opinions, feelings and interpretations (Patton, 1990).

The order in which participants were interviewed can be seen in Appendix D. Rather than reflecting a preconceived order, interviews were structured around the times the participants were available to meet with the researcher. At times, the researcher spent months setting up an interview time only to have it cancelled at the last minute. Other difficulties were also encountered in interviewing Board Members of the Condamine.

The Condamine Alliance went through a period of transition through the early months of 2003, during which membership within the organisation changed and,

with this, so did the focus and direction of the organisation. During this restructuring period Board Members of the Condamine Alliance were “unavailable” because power relationships were being renegotiated, and they were not prepared to talk candidly about the dynamics until it had stabilised again. During this time the researcher took the opportunity to build a relationship with new members of the Condamine Alliance. Once the organisation stabilised, interviews with Board Members recommenced. These interviews provided valuable reflections and insights into the relationships and decision-making during this restructuring period.

A review of the literature offers little specific guidance as to when to stop conducting interviews. Lofland (1984) suggests the number of interviews undertaken should be between 20 and 50, as the researcher would have difficulty managing data above this limit. Douglas (1985) suggests 25 interviews as a common number, but stressed that the number of participants ultimately depended on the research context. Despite these recommendations, in qualitative research it is widely accepted that there is no set number of what constitutes enough participants (Glaser & Strauss, 1967; Taylor & Bogdan, 1984; Henderson, 1991).

Perhaps the most helpful guidance is to keep interviewing until no new information is emerging from participants (see Taylor & Bogdan, 1984; Henderson, 1991; Hartley, 1994). For this research the interview process was stopped when all of the key sectoral interests in the natural resource management network had been covered, and when no new information was emerging from each of these sectors. The list of participants, the date they were interviewed, and their position has been described in Appendix D.

3.4.4 Ethical issues

Ethical issues such as: confidentiality, the taping of interviews, and who would have access to the data, were outlined in an information sheet sent to the participant, along with the consent form, prior to the interview. The researcher also brought copies of the information sheet (Appendix E1) and consent form (Appendix E2) to the interview. Before the commencement of the interview the researcher ensured that the participant understood the ethical issues relating to the research and consented to participation. At this time, the participant was

also given an opportunity to discuss any issues about confidentiality that he or she thought may not have been fully addressed.

Information regarding confidentiality was provided prior to the interview. In order to protect participant confidentiality, and given the sensitive nature of research into stakeholder relationships and the politics of natural resource management, it was decided that participants would not be identified within the body of the thesis. As such, participants have been assigned a random letter that they are identified by each time they are referred to in the text. This approach was adopted because it provides the reader consistency in identifying multiple comments made by the same individual, without disclosing their identity. Also for confidentiality reasons, the date on which the interview occurred has been omitted from the in-text personal references.

This decision was made to encourage participants to be open in discussing sensitive issues, and to provide confidence that they would not experience negative consequences for participating in the study. The participants did not typically raise ethical concerns, however, on one occasion, a participant concerned about confidentiality sought clarification as to how information they had provided would be referred to in the thesis. Other participants provided information that they specifically asked not to be reported in the thesis. This information was used to build the researcher's understanding of the issues, and to critically evaluate the information gathered from other sources. To ensure confidentiality this information was not acknowledged in the body of the thesis.

3.4.5 *Interview technique*

While the design of the interview approach is important, a number of authors (e.g. Deutscher, 1968; Fontana & Frey, 1994; Patton, 1990) indicate that the technique of the researcher in conducting the interview is perhaps the critical influence in obtaining quality information. Before conducting interviews the researcher conducted some preliminary information gathering exercises, which helped to inform the development of the interview questions. During each interview the researcher employed the techniques identified by Fontana and Frey (1994) designed to make the participant as comfortable as possible. The researcher maintained the tone of a "friendly" chat, checking the veracity of statements in an inconspicuous way by asking related questions, often at a much later point in the interview. Engaging with the participant at an inter-

personal level during the interview also contributed to making them feel as comfortable as possible.

A review of the literature reveals that while some authors (e.g. Henderson 1991) identify that researchers should exhibit objectivity and value-neutral behaviour, a number of authors (e.g. Kuhn, 1962; Taylor & Bogdan, 1984; Fontana & Frey, 1994) stress that the researcher has a role to play in establishing a rapport with participants. Dunn (2000) states that achieving and maintaining rapport can be the key determinant in achieving a successful interview. Taylor & Bogdan (1984) and Dunn (2000) identify that it is sometimes necessary for the researcher to divulge some of their own information or perspective in order to establish a deeper rapport with the participant. Fontana & Frey (1994) identify that demonstrating understanding of the context in which the participants operate is important to encourage participants to more freely discuss interview topics, and Kuhn (1962) highlights that using similar language, and demonstrating that the researcher holds shared frames of reference with the respondent, is important.

The researcher found that remaining distant from the participant led to a poor return of information. In many cases, if the researcher did not demonstrate that he had an extensive knowledge of the issues, and familiarity with technical aspects of natural resource management, the participants answered questions in a broad or general way, not getting to the “core” of the issues. Typically, demonstrating the researchers knowledge was achieved by discussing technical information, such as the type of vegetation communities found in the case study area, or by demonstrating an intimate knowledge of the planning process in which participants were primarily involved.

Once the researcher demonstrated expertise in the relevant area, participants typically became more involved in the interview and actually seemed to enjoy discussing complex aspects of their job, and natural resource management in general. At the completion of the interview a number of participants thanked the researcher for asking questions, as it gave them the opportunity to critically look at their role, the role of other stakeholders, and their relationship to them. One participant remarked that, although the stakeholder organisation they represent has a significant impact of the way natural resources are managed in the region, the participant had never been asked by anyone before to articulate how the organisation incorporates natural resource issues into decision-making (pers. comm., Participant L).

Four participants acknowledged that the questions asked within the interview encouraged them to analyse their own, or other stakeholder's, position in the natural resource management network, and raised some interesting questions about their role that they would continue to critically evaluate (pers. comm., Participant A; Participant Y; Participant B; Participant X):

I think you have asked some good questions ... I am glad somebody is asking those sorts of questions ... I am glad you are going to be asking those questions of the other Directors (of the Condamine Alliance). I am really glad because it will certainly make them think. Thinking about things and trying to work your way through the maze is where it is all at. (pers. comm., Participant X)

While knowing what to say, and what questions to ask, in an interview is important, Patton (1990) identifies that the key to obtaining quality information from a participant is knowing how to listen. In an interview the researcher is not a neutral agent recording a response. Instead, the interviewer is interacting with the participant to draw out their attitudes and experiences in relation to certain issues (Kuhn, 1962). To allow the researcher to be attentive to the participant it was decided to tape-record all interviews. Tape-recorders allowed the researcher to be flexible and attentive during the interview, demonstrating that they are actively listening (see Lofland, 1971). It also allowed the researcher to concentrate on formulating follow-up questions and probes (see Dunn, 2000). The main disadvantage associated with tape-recording interviews is its potential to make participants feel ill at ease, and result in them being less forthcoming (Dunn, 2000). The researcher did not encounter any participants that seemed uncomfortable with the tape recorder.

Perhaps the most time consuming aspect of conducting interviews is transcribing the data. While this may take a significant amount of time, the literature recommends that the researcher undertake this task in full for two main reasons. Firstly, as the researcher was present at the interview they are best placed to reconstruct proceedings (Dunn, 2000). Secondly, transcribing allows the researcher to reengage with the data, aiding analysis (see Lofland, 1971; Dunn, 2000). To capitalise on these benefits the researcher transcribed all interviews. When transcribing data, there is conflicting opinion as to how much detail needs to be recorded. Lofland (1971) states that there is no need to transcribe verbatim, while Patton (1990) recommends that the researcher do

this, as the raw data is important and is necessary for quotes. The researcher decided to transcribe verbatim, as summarising or leaving parts out was considered to be a filter that would later limit analysis.

3.4.6 *Analysing the interview data*

Analysing qualitative data is a topic addressed in some detail in the literature (see Yin, 1984; Wolcott, 1994; Taylor & Bogdan, 1998). For interview data, two types of analysis are possible: using computer programs, and the researcher undertaking analysis “by hand”. Dunn (2000) identifies that computer programs are effective at analysing the surface content of an interview; for instance tallying how many times a key word is repeated. It was considered that this type analysis was inappropriate for the depth and richness of information that was sought from participants in this research. Given the focus of the research, manual analysis of the data was considered more appropriate. Manual analysis enabled the researcher to determine the underlying meaning of the words of the participant through a process of identifying themes, coding the data, and analysing it in terms of how it relates to the social phenomenon being studied (Marshall & Rossman, 1999).

3.4.7 *Discussion of experiences*

Most of the interview literature is focused on the social sciences. To contribute to the body of knowledge relating to the use of the interview as a technique for qualitative inquiry into natural resource policy and management issues, it is important to discuss the experiences of this researcher. In conducting the interviews, the researcher found that while most participants were happy to discuss all of the issues openly, there were times when participants would ask that certain comments could remain confidential. These confidential discussions were typically initiated by the participant towards the end or after the formal interview. A valuable tool for the researcher was to engage in informal discussion with the participants after the formal interview process, and to enquire further about important issues that arose in the interview. This was usually rewarded with more open discussions of the issue.

In the interview itself, the researcher found that one of the keys to achieving an open discussion was to establish and maintain a rapport with participants through active listening. This was achieved through maintaining eye contact, responding to changes in tone, demonstrating interest in responses (through

nodding at appropriate times, repeating key words that they had mentioned, smiling at jokes), and demonstrating understanding of issues discussed (e.g. seeking clarification, drawing links to previous answers, demonstrating familiarity with technical language). Active listening encouraged the participant to communicate a greater depth of information. Concentrating on the subtle cues provided by the participants also helped to identify the attitudes, perspectives, and emotions behind their answers. This assisted the researcher in articulating prompts and follow up questions to explore the research issues. The role and actions of the researcher during the interview process was believed to be an important influence on the quality and depth of information obtained.

As well as being a research tool, the interview can also have positive outcomes for participants. Kuhn (1962) identifies the possible role of an interview as a “therapeutic” instrument to bring about change in the respondent as well as providing information to the researcher. It was found that the potential for this to occur depended on the attitude towards the research, and researcher, adopted by the participant. Participants generally could be characterised as holding one of three perspectives on the purpose of the interview process.

Firstly, there were those that saw the interview as a one-way flow of information, where they could describe the complexities and challenges of natural resource management in the Condamine Catchment to the researcher. Secondly, some participants viewed the interview as an opportunity for reflection on how natural resource management was undertaken in the case study area. Thirdly, a small number of participants perceived the interview as an opportunity to “educate” or convince the researcher to take their conceptualisation of the problem away with him.

Those participants that perceived the interview as a one-way flow of information did not disadvantage the research. It meant that discussion flowed freely, large amounts of information were communicated and there were few “off limits” subjects. Those that viewed the interview as an opportunity for reflection communicated the greatest depth of information. They typically took up the central themes of the research and used them to critically look at how natural resource management was undertaken. Some participants found that this helped them to develop insights into how it could be improved (pers. comm., Participant A; Participant X).

Those that conceptualised the interview as an opportunity to educate, or convince, the researcher proved a little more difficult to engage with, but still offered certain advantages. In these interviews the researcher found it best to adopt the role of an observer, as demonstrating intimate knowledge of the planning processes or natural resource issues risked sparking what the participant perceived as a questioning of his or her interpretation of events. This could have damaged the rapport between the researcher and the participant, and would be in contradiction to the most productive approach of adopting a non-argumentative, supportive and understanding attitude (see Lofland, 1971).

The advantage of these situations was that the attitudes and perspectives of the respondents were easy to determine, they were clearly evident in their responses. Whereas the responses of some other participants were at times carefully worded so as not to give their own position on the issue away, respondents looking to “convince” the researcher were more open with their perspectives. These situations were typically encountered with respondents employed in positions where they possessed higher levels of power and influence.

3.5 Secondary data

Secondary data sources were used in combination with the interviews as a way to build a conceptualisation of the contemporary and historical context for decision-making. These sources were also used to construct, verify and question evidence concerning stakeholders’ actions, attitudes, perceptions and relationships uncovered through the interview process. Secondary data sources included participant observation, an extensive review of the literature, the examination of organisational and policy documentation, analysis of parliamentary debates, and textual analysis of historical texts and newspapers.

Participant observation was conducted by attending those natural resource management forums open to the researcher (see Table 3.2). This opportunity, however, was limited as Board Meetings held by the Condamine Alliance were closed. Attending those meetings open to the researcher provided an opportunity to witness the current relationships and dynamics between stakeholders “up-close” and in person. It also provided the researcher the opportunity to keep informed of the progress of policy-making processes, to

identify issues to explore further through other data collection techniques, and to build relationships with key participants (see Browne 1999).

In conducting participant observation the researcher acknowledged the discussion surrounding its use as a research technique, namely the opportunity for bias (e.g. Yin 1984, Taylor & Bogdan 1994). It was found that participant observation was a useful technique, providing an opportunity to compare actual behaviour to the descriptions provided by interview participants.

Analysis of policy documents, in association with an analysis of practice, can demonstrate two things. It shows the divergence between rhetoric and action, and demonstrates the internal struggle of competing perspectives within an organisation (Jacobs 1999). This technique was utilised in analysing the policy and position documents produced by key organisations and agencies in the case study area, as well as those documents outlining the broader policy position of the Queensland and Commonwealth governments. This analysis was supported through an examination of government debates in both the State and Commonwealth government (through government parliamentary debates).

Analysis of policy documents enabled the actual practice of organisations and agencies to be compared to policy positions and to the attitudes, perceptions and beliefs of those politicians and bureaucrats involved with its development (Forster 1994; Steyaert & Bouwen 1994). When combined with an analysis of historical texts and newspapers, this approach also provided valuable insights into the past relationships, beliefs, and perspectives of key stakeholders that shaped decisions. This information was used comparatively with results from the interviews. By comparing policy positions, organisational perspectives and public statements with private perspectives and insights it was possible to derive a clear distinction between the organisational rhetoric and actual practice, how the perspectives and actions of individuals differed from those of the organisation they represent, and the impact of these differences on natural resource management within the Condamine Catchment.

Table 3.2: Meetings attended

Organisation	Meeting Type	Location	Date
Brigalow-Jimbour Floodplains forum	Formal meeting to decide future direction of floodplains management in the Condamine Catchment	Toowoomba City Council EDROC offices, Meeting Room	August 5 th , 2002
Natural Resource Management Workshop	Natural resource management practitioner Workshop and Presentations from guest speakers	DPI Training Centre, Tor Street Complex, Toowoomba	September 9 th , 2002
Condamine Catchment Management Association	Condamine Catchment Management Association Ordinary Meeting	DPI Training Centre, Tor Street Complex Toowoomba	February 19 th , 2003.
Condamine Catchment Management Association	Condamine Catchment Management Association Ordinary Meeting	Committee Room, Glenvale Building, Toowoomba Showgrounds, Toowoomba	April 9 th , 2003
Condamine Catchment Management Association	Condamine Catchment Management Association Ordinary Meeting	DPI Training Centre, Tor Street Complex Toowoomba	June 9 th , 2003.

3.6 Advantages and limitations of the research approach

The research approach utilised within this research presented both advantages and limitations. The major advantage of adopting the case study approach was the depth and richness of information that was collected through using multiple data sources, research methods, and a two and a half year study period. Given the complexity of relationships, politics, and history that exists between stakeholders engaged in natural resource management in the Condamine

Catchment, the depth of information that case study strategies provide was considered necessary to understand the policy-making process. There were, however, three disadvantages associated with the approach that need to be mentioned.

Firstly, the reliance on in-depth interviews as the primary research technique necessitated the development of a rapport, and trust, with participants. This was important to gain access to the participants and to uncover rich information. Failure to achieve this could result in information and perspectives of a particular interest group or individual being underrepresented. Restructuring of the network of stakeholders engaged in natural resource management in the Condamine Catchment during the period the research was undertaken endangered the development of these researcher/participant relationships. In particular, changes within the network resulted in key members of the Condamine Alliance leaving. New relationships had to be established with other members of the organisation to ensure access to participants and support for the research.

Building these relationships meant that the researcher had to constantly evaluate his relationship to the participants and adjust his strategies for eliciting information. For example, during the restructuring period of the Condamine Alliance the Company Secretariat (whom the researcher had established a relationship with and had come to an understanding concerning the research and access to information and board members) left the organisation. When obtaining the same understanding with the newly appointed independent Chair of the Board proved difficult, the researcher had to rely on his relationship with other Board Members to “put in a good word” for the researcher. Once access was achieved, the researcher then had the opportunity to convince the other Board Members of the value of the research and obtain their support. Building relationships with stakeholders became an important part of the research.

Secondly, the history of interactions between some of key stakeholders within the network meant that relationships were characterised by ongoing conflict, power differences and trust issues (see section 4.6). This put the researcher in a difficult position, as being perceived as having close ties to a particular group could potentially alienate other stakeholders. To prevent this, the researcher had to appear as independent as possible. The researcher was careful not to be seen spending too much time with any one stakeholder while attending a public

forum, such as a catchment management meeting. Other techniques included treating each stakeholder's perspective with respect, and stating up-front that the researcher was conducting independent research and was not aligned with any specific interest.

Maintaining the appearance of being independent at times proved difficult, as the researcher found it easier to establish closer relationships with particular stakeholders. It became a difficult decision as to whether the researcher should pursue these relationships in an attempt to gain a greater depth of information by building a rapport and trust and risk alienating other stakeholders. The researcher decided that, while in the public sphere (such as when attending meetings), the researcher would remain as neutral as possible. Establishing a greater rapport with participants was attempted before and after interviews and at other opportunities as they arose.

Finally, the long time lag between the implementation of policy, and the time the consequences can be seen as changes in the environment (see section 2.7), prevent research into current policy processes drawing links between the policy-making process and "on-the-ground" outcomes (see Sharp & Richardson, 2001). Instead, research must focus on examining how decisions are made and how these decisions affect how resources are managed. Such an approach provides important information on the content of management plans and management direction but it cannot evaluate the success of the decision-making process against actual changes in the environment. Evaluation of this nature could only be achieved through a longitudinal study.

3.7 Conclusion

No single research approach fits every situation. The research approach depends on the type of research being undertaken, the type of results sought, and the context in which it is to be implemented. This chapter has described the research approach the researcher believes was most appropriate for examining the implementation of the National Action Plan in the Condamine Catchment. The design of the research approach is also influenced by the values and perspectives of the researcher, which affect methodological and analytical choices. By acknowledging and identifying the values of the researcher, and identifying the opportunities and barriers presented by the research, this chapter

provides an accurate and transparent account of how the research was undertaken.

Undertaking research of this nature presented many challenges. Trust and a rapport had to be developed with each participant. The researcher had to wade through the rhetoric to delve more deeply into the forces shaping decisions. This had to be done in a dynamic context in which the actors, and the power relationships between them, were constantly changing. Rather than being viewed as a negative, this context provided an opportunity to gather rich information into how practical (as opposed to theoretical) collaborative approaches to natural resource management function, information necessary to extend understanding of the opportunities and barriers of collaborative approaches in these contexts. The results of this research can be seen in the following chapters.

Chapter Four analyses the institutional arrangements that frame natural resource management in the Condamine Catchment. Beginning with a broad, Australia-wide perspective before drawing the reader down into the specific context of the Condamine Catchment, Chapter Four provides insight into how the design of overarching institutional arrangements affect how natural resources are managed in a local context, and evaluates how the institutional arrangements of the National Action Plan shaped natural resource management decisions within the Condamine Catchment.

Chapter Four

Analysis I

The institutional arrangements framing natural resource management in the Condamine Catchment

This [National Action Plan] represents the most comprehensive attempt ever in the history of this country to tackle what is arguably the most serious long-term environmental challenge, and that is, the degradation of our soil through the process of salinity and the impact that it has not only the quality of soil and the potential for economic growth and development but also on the quality of our water (The Hon. Prime Minister, John Howard, 2000: 22151)

I hope that the National Action Plan could be managed in such a way that it is a long-term vector for change, but whether that will be the case, given that the politics of the process is more about splashing cash and looking flash, probably not (pers. comm., Participant Q).

4.1 Introduction

The National Action Plan is representative of recent reforms to the way natural resource management is undertaken in Australia. These reforms include increasing federal government involvement in natural resource management, a growing commitment to regional delivery, and the reliance on partnership agreements with stakeholders for implementation. Collectively, these reforms introduce new institutional arrangements for natural resource management. Government rhetoric surrounding the National Action Plan indicates that these reforms are geared toward developing a strategic and holistic (integrated) approach to natural resource management (see Commonwealth Department of Agriculture, Fisheries, and Forestry – Australia 2000; Anderson, 2001: 26126).

The institutional arrangements framing natural resource management play a significant role in shaping outcomes (see Mitchell & Hollick, 1993; Yaffee, 1998;

Hooper et al., 1999; Brown, 2002). Decision-making processes, stakeholder relations/interactions and outcomes are shaped by the context in which they operate (Forester, 1989). Despite this recognised influence, institutional arrangements have received little attention in the literature examining collaborative planning practice (McGuirk, 2001). This chapter contributes to the understanding of how institutional arrangements shape decisions within collaborative planning practice.

The aim of this chapter is to describe the institutional arrangements framing natural resource management within the Condamine Catchment under the National Action Plan, analyse the intended and unintended consequences for the way natural resource decisions are made and evaluate whether these institutional arrangements advance substantive IREM objectives. Institutional arrangements are not only comprised of the formal policy framework, but also include the formal and informal rules governing stakeholder roles, responsibilities and behaviour that have developed through a history of stakeholder interactions. To evaluate institutional arrangements, in-depth analysis is required at multiple levels. To achieve its aim, this chapter is structured around four key foci:

1. The broad context of natural resource management in Australia is described, detailing how these arrangements have influenced contemporary policy frameworks;
2. The institutional arrangements of the National Action Plan are described, identifying the key influences that shaped their development and the changes they introduce for the way in which natural resource management is undertaken at the regional level;
3. The context of natural resource management in the Condamine Catchment is analysed, examining how the introduction of the National Action Plan has altered how resource management takes place; and
4. Using the evaluative framework described in section 2.6, the institutional arrangements framing how natural resource management takes place in the Condamine Catchment under the National Action Plan are evaluated to determine whether they advance the substantive objectives of IREM.

4.2 The evolution of natural resource management in Australia

Intergovernmental relations in Australia are complex and dynamic. Broadly speaking, State and Commonwealth governments are moving towards collaborative patterns of intergovernmental relations, as evidenced by an increasing movement toward joint schemes of policy development and administration (Painter, 1998b). The natural resource sector has not escaped these changes (see Gardner, 1999; Jennings & Moore, 2000; Lane, 1999). These joint schemes of governance have allowed the Commonwealth to increase its role in natural resource management, which has allowed the Commonwealth to introduce reforms to the way natural resource management is undertaken.

Recent reforms to the natural resource sector include: a greater commitment to regional delivery (Jennings & Moore, 2000) and a greater reliance for implementation on partnerships agreements, both between levels of government and between government and community stakeholders (Lyster, 2002). These reforms are evident in the policy framework of the Commonwealth initiated National Action Plan. Natural resource management in Australia is a responsibility that has traditionally been under the jurisdiction of the States. To understand how and why the Commonwealth has increased its influence in the natural resource sector it is necessary to delve into the recent complex history of State and Commonwealth intergovernmental relations. Identifying the reasons behind the Commonwealth's increasing influence provides insight into the reasoning behind the development of the National Action Plan and the policy framework that support this initiative.

In the late 1970s and 1980s, Australia witnessed an unprecedented level of intervention by the Commonwealth into natural resource and environmental policy-making. This intervention was driven, in part, by the Commonwealth government seeking to progressively expand its range of concerns as a result of new responsibilities associated with international agreements (such as the Ramsar Convention on Wetlands 1971 and the World Heritage Convention 1972), heightened public awareness of environmental issues and the growth in environmental science research and knowledge about environmental impacts of development. This expansion was resisted by the States, eager to protect the sovereignty they had traditionally exercised over natural resource management

as a result of Australia's constitutional division of roles and responsibilities. Under the Constitution, all powers of national interest, such as regulating currency, customs, immigration and national trade, were given to the federal government and all other issues not specifically mentioned became residual powers for which the states took responsibility. However, as times change, perceptions of the national interest also change. The environment and natural resource management came to be seen as national issues and the Commonwealth government began to expand its policy interest into these areas, Becoming signatories to international conventions gave the Commonwealth government the leverage it needed to claim the environment as being of national interest and therefore justifying its incursion into traditional areas of state policy .

As a result of the federal government's expanding interests, various State governments and the Commonwealth were involved in protracted high court challenges including the Franklin Dam in Tasmania¹, sand mining of Fraser Island² and World Heritage listing of the Wet Tropics in Queensland³ cases. While each case was quite different, the common underpinning issue was the extent to which the Commonwealth could exert power over policy areas that were traditionally of state interest.

Ultimately the High Court determined that the Commonwealth government had the power to extend its policy-making areas to include in natural resource and environmental management where deemed to be in the national interest. As a consequence, a new era of co-operative policy making in environment and natural resource management between the States and the Commonwealth was forced out of the necessity to move on from the protracted and costly conflict of the 1980s. In 1992 the Commonwealth and States/Territories signed an Inter-Governmental Agreement on the Environment (IGAE) heralding a political commitment by both levels of government to work co-operatively in matters of the environment (Lane, 1999).

The IGAE sought to reduce intergovernmental conflict by committing all governments to an agreement over their respective roles and responsibilities with regard to resource and environmental issues (Lane, 1999: 145). The

¹ See *Commonwealth v. Tasmania* (1983) case summary described in Fisher (1993: 98)

² See *Murphyores Inc. Pty Ltd v. Commonwealth* (1976) case summary described in Fisher (1993: 55)

³ See *Queensland v. Commonwealth* (1989) case summary described by Fisher (1993: 104)

introduction of the IGAE provided a foundation that facilitated the development of cooperative approaches to natural resource management between the States and the Commonwealth. The flagship of this cooperative approach was the Murray-Darling Basin initiative, which remains a strong natural resource management institution today. The IGAE facilitated a cooperative approach because the Commonwealth defined for itself a narrower role in natural resource management than its legal responsibilities allowed (Lane, 1999: 145). This move placated the States, and introduced into Australian natural resource politics a period of calm in Commonwealth/State relations that allowed cooperative approaches to be developed. It was a period of calm, however, that was to be short lived.

Throughout the 1990s the Commonwealth began to seek ways to increase its involvement in natural resource management. The publicly-stated reasons behind this increasing involvement are articulated in a speech to justify the need for the Commonwealth developed National Action Plan made by the (then) Commonwealth Minister for the Environment, Senator Robert Hill:

The States and Territories have jealously defended their rights under the Constitution to control land and water management issues. They now have to accept that with those rights comes responsibility. The degradation of our land and water resources that has occurred is under the direct control of the States and Territories. For us to fix the problem, they must now agree to improve their governance of natural resource issues. (Hill, 2000: 18967)

In essence, the Commonwealth argued that the States had not been fulfilling their responsibilities with regard to natural resource management, and that environmental degradation had progressed to such a level that it was no longer simply a State matter, but one of national significance.

Despite threats of unilateral action if the States did not improve their management of the nation's natural resources (e.g. Hill, 2001: 21864), the Commonwealth was restricted in its ability to enact reforms in the natural resource sector. These restrictions were a consequence of the development of the IGAE, political lessons learned from previous incursions and legal (e.g. High Court) decisions (Lane, 1999). As a consequence, the Commonwealth has sought to increase its influence over natural resource management, and pursue its reform agenda, through the development of coercive policies marketed as "partnership agreements" with State governments. Examples of these

agreements include the development of Regional Forestry Agreements (see Brown, 2002; Lane, 1999), Natural Heritage trust Funding (see Gardner, 1999; Crowley, 2001), and, most recently, the National Action Plan (see Commonwealth Department of Agriculture, Fisheries, and Forestry – Australia, 2000).

The States' participation in these partnership agreements may be described as coerced and appear to be driven by fiscal concerns.

One of the many paradoxes of the Australian federal system is that the six State governments enjoy firmly entrenched legal powers and constitutional safeguards, while they submit to Commonwealth financial dominance. (Painter, 2001: 138)

This fiscal imbalance is created by a taxation system that is structured in such a way that it is the Commonwealth that collects a vast majority of the taxes (Summers, 1997). The States' reliance on the Commonwealth for revenue has put the Commonwealth in the position that they can increasingly dictate how this money is spent, and also alter the amount made available (Summers, 1997). The States face an ongoing dependence on the Commonwealth for revenue as opportunities for the States to generate their own revenues have been restricted (most recently by the introduction of the Goods and Services Tax legislation). A desire for greater financial security, coupled with constraints surrounding the levelling of their own taxes, has encouraged the States to seek alternative ways of addressing expanded policy agendas and reducing expenditure.

Partnership agreements have become attractive to the States because of the incentives they offer. Indeed, the Queensland government appeared so eager to enter into the partnership agreement with the Commonwealth for the implementation of the National Action Plan that the Premier of Queensland, Peter Beattie, after signing the agreement, actually criticised the Commonwealth for delays in committing to its implementation (Beattie, 2003: 1947). It appears that in the current political climate, partnership agreements for the natural resource sector represent a "win-win" scenario for both levels of government.

By merging political agendas in a partnership approach to natural resource management the States gain an opportunity to fund the improvements they want to make. To encourage the States to enter into partnership agreements, such as the National Action Plan, the Commonwealth offers funds towards the

implementation of natural resource management in addition to the traditional level of revenue normally allocated to the States. This is an expense usually borne wholly by the States out of their annual allocation of taxation income. The States also gain the opportunity to move their political agenda forward through establishing a relationship with the Commonwealth.

In return, the Commonwealth effectively coerces natural resource management reform (see Gardner, 1999). This arrangement is reflected in the partnership arrangement for the implementation of the National Action Plan. Under this agreement, the Commonwealth contributes half of the funds for its implementation (the other half is contributed by the States), and receives for its investment the opportunity to reform the institutional arrangements governing natural resource management.

The Commonwealth's reform vision was clearly articulated in a discussion paper entitled *Managing Natural Resources in Rural Australia for a Sustainable Future*, released in December 1999 by the Commonwealth Department of Agriculture, Forestry and Fisheries – Australia (Lyster, 2002). As Lyster (2002: 35) identifies, this discussion paper promotes collaborative partnerships with both government and community, and commits to regional delivery as a means to achieve ecologically sustainable management of natural resources in Australia:

The paper [Managing Natural Resources in Rural Australia for a Sustainable Future] stipulated that to achieve ecologically sustainable development the following management principles would be adopted: that natural resource management requires a partnership between all parties, including government, communities, industry, landholders and individuals, each with clear and agreed roles and responsibilities; and that authority would have to be devolved to regions or catchments.

But what is driving this commitment to collaborative governance structures? The rhetoric advocating the development of partnerships with community and devolution of decision-making authority to regions suggests a commitment to collaboration as a way to achieve an integrated approach to natural resource management. However, a review of the policy science and natural resource management literature indicates that there may be other motives driving the promotion of collaborative approaches to natural resource management.

Painter (1996) reviewed a number of examples of partnership approaches to policy-making between State and Commonwealth governments. Painter (1996) argues that, while these policy initiatives appeared to reflect a collaborative approach to governance, both levels of government continued to function as autonomous entities, only coming together through programs that offered joint benefits. These results indicate that reasons other than the desire to establish collaborative forms of governance are driving the development of these partnership agreements.

A review of the policy science literature suggests that economic forces are driving collaborative governance structures, namely an agenda centred on achieving micro-economic reform (see Painter, 1998b; Curran & Hollander, 2002; Edwards, 2002; Summers, 1997). Joint approaches between State and Commonwealth levels of government, Painter (1998b: 4) argues, are being driven by a 'pro-competitive, neo-liberal policy agenda'. It is an agenda aimed at improving economic efficiency by removing barriers to competition, encouraging the free movement of goods and services, and by reducing the duplication of services (Painter, 1998b; 1996; Curran & Hollander, 2002; Summer, 1997).

Similar arguments are proposed to explain the increasing implementation of collaborative arrangements between government and the community to implement natural resource management in Australia. Dovers (2001b: 178) identifies that the last two decades of microeconomic reform, brought about by the dominant neo-liberal economic and political ideology, have resulted in a change of focus for government in the natural resource sector towards a search for greater economic efficiency in its delivery. It is an assertion reiterated by Crowley (2002). Jennings & Moore (2000: 178) argue that this process of micro-economic reform has changed the way natural resource management is implemented "on the ground". They argue that governments are committing to collaborative approaches because the regionalisation and devolution of responsibilities inherent in these approaches are perceived as a way to improve the efficiency of natural resource management implementation.

In other parts of the world too, there have been movements toward regional delivery and devolution of responsibility to communities for natural resource management. As in Australia, these reforms have been attributed to governments increasing the search for greater efficiencies in the implementation

of natural resource management through a deregulation of the natural resource sector (Bradshaw 2003; Edwards 2002).

[A]nother crucial trend in the prevailing move toward deregulation is the establishment of government/community partnerships to manage resources. These partnerships are at once the result of downsizing in the public sector which is now expected to operate as effectively as the corporate sector; as well as a so-called “desire” by government to regulate “in partnership with the community” in the area of natural resource management (Lyster 2002: 37).

Deregulation of the natural resource sector is a commitment that the Commonwealth has been obliged to undertake by the National Competition Policy, which has directed them to ‘remove impediments to competition, to recognise property rights in natural resources and to establish markets that facilitate trading in these new rights’ (Lyster, 2002: 35).

The rhetoric of the National Action Plan indicates that the collaborative governance structures embedded within this initiative were designed to empower communities to control the management of their natural resources, as articulated by the (then) Federal Minister for the Environment Dr. David Kemp:

The National Action Plan for Salinity and Water Quality is about Australian governments and local communities working together to manage two of the most significant environmental issues facing Australia (Kemp, 2003: 1).

It is a sentiment also expressed by the (then) Queensland Minister for the Department of Natural Resources and Mines, Mr. Stephen Robertson:

The fight against salinity in the Condamine Catchment hinges on encouraging local groups and communities to work together on area-specific strategies (Robertson, 2003b: 1).

However, the institutional arrangements of the National Action Plan also support the Commonwealth government’s commitment to micro-economic reform (see Edwards 2002). Collaborative forms of governance achieve gains in economic efficiency by shifting the costs of undertaking service delivery (in this case managing the use of natural resources) from government to community, and through deregulation of the natural resource sector (see Edwards 2002; Lyster 2002; Jennings & Moore 2000).

When viewed in this context, the National Action Plan presents both opportunities and barriers for improved natural resource management. Potential positive outcomes of these reforms include: the opportunity to implement natural resource management at more ecologically appropriate scales (Dovers, 2001a), improve community engagement with decisions (Dovers, 2001a), to improve the potential for integration (Scanlon, 2001) and to improve the efficiency of implementation (Jennings & Moore, 2000). Barriers include that too much focus on economic efficiency can come at the expense of good planning and management (Dovers, 2001b: 220). To identify how the National Action Plan affects natural resource management, it is necessary to critically analyse the institutional arrangements of this policy initiative.

4.3 The institutional arrangements of the National Action Plan

The National Action Plan is a policy ratified through partnership agreements between the Commonwealth and the States. It is jointly funded by the Commonwealth and commits its signatories to the implementation of natural resource management at the regional scale through partnerships with local government and community-based stakeholders. As such, the National Action Plan represents a practical example of the Commonwealth's vision for the future of natural resource management in Australia. While details of the National Action Plan were introduced in chapter one (see section 1.6), this section describes in detail the institutional arrangements of the National Action Plan to identify how they affect natural resource management.

The statutory framework supporting the National Action Plan consists of three formal documents, the policy description of the National Action Plan for Salinity and Water Quality, an Intergovernmental Agreement, and Bilateral Agreements developed between the Commonwealth and each State and Territory. The National Action Plan itself is a brief document of eight pages. It represents an expression of Commonwealth policy, but only outlines the broad objectives of this policy initiative. Much of the detail surrounding how the National Action Plan is to be implemented is outlined in agreements entered into by the Commonwealth and State and Territory governments. These agreements commit stakeholders to implementation, and represent the authority that gives credence to the National Action Plan policy initiative. To provide a better understanding of how these agreements function, and the parties who are

signatories to them, a schematic diagram of the implementation arrangements for Queensland (including the case study area) is presented as Figure 4.1.

The Intergovernmental Agreement is a single document signed by the Commonwealth and all State and Territory governments. The agreement commits all parties to supporting the implementation of the National Action Plan. The Intergovernmental Agreement is a brief document that outlines the broad philosophy of the policy but contains no details of how the policy is to be implemented. Details of implementation are described in a second agreement, the Bilateral Agreement. This is an agreement that the Commonwealth enters into with each State and Territory individually.

The Bilateral Agreement provides specific details as to how the National Action Plan will be implemented in each State or Territory. It outlines the roles and responsibilities of each level of government, outlines how decisions will be made and the structures that will be put in place to make them. In short, it represents a description of how these two levels of government will interact with each other when implementing the National Action Plan. The Bilateral Agreements are negotiated between the Commonwealth and each State and Territory individually. Their composition is dependent on the priorities and aims of each party, and the level of negotiating power each possesses.

This formal framework is supported by Trilateral Partnership Agreements, a third level of (non-statutory) agreement that is entered into by the Commonwealth, State or Territory and each Regional NRM Body. This agreement further details implementation arrangements, outlining: funding arrangements for the Regional NRM Body, targets to be achieved, strategies to achieve them and requirements for monitoring and evaluation. Partnership Agreements describe how the Regional NRM Body will interact with the State and Commonwealth when implementing the National Action Plan.

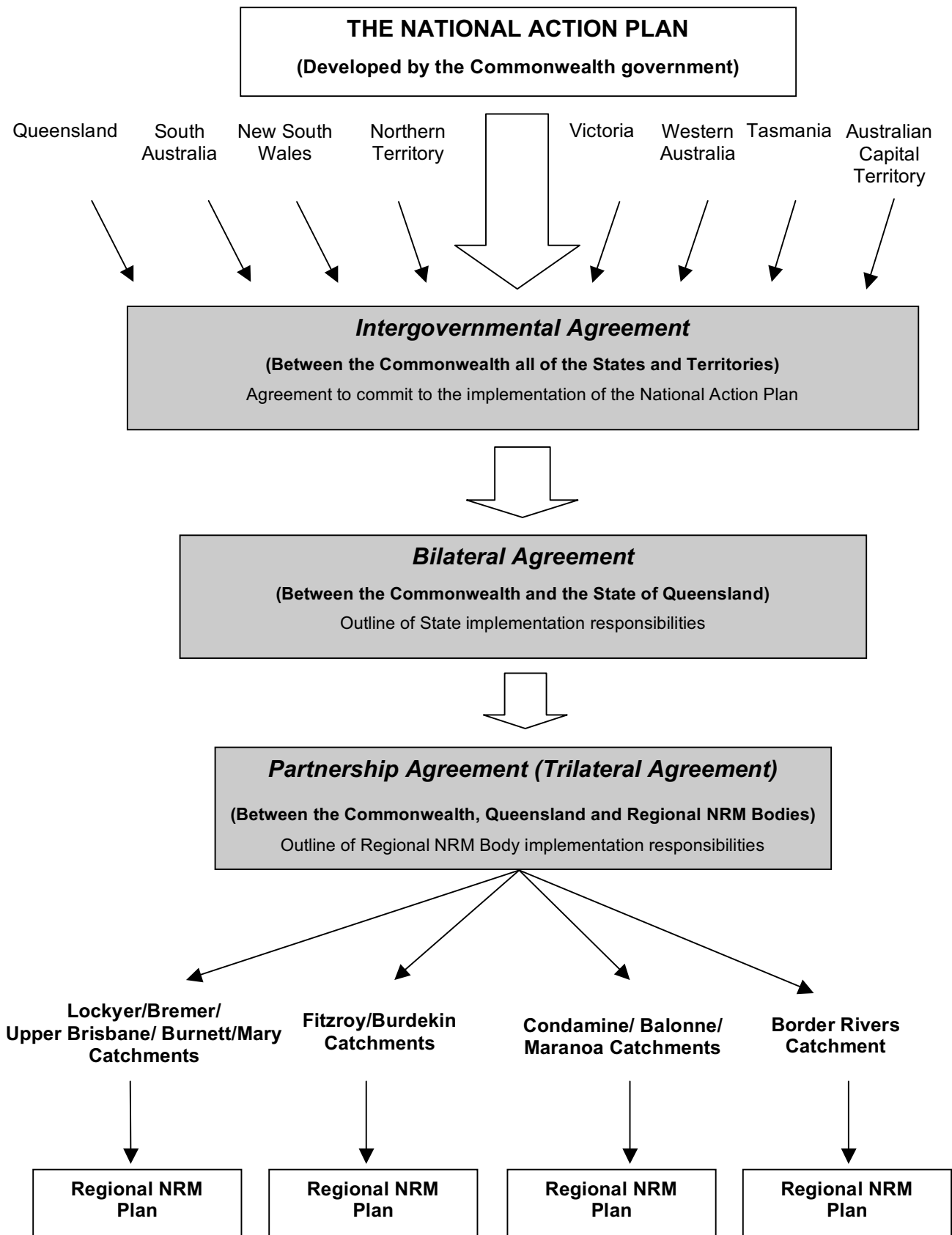


Figure 4.1: Implementation arrangements for the National Action Plan demonstrating the hierarchy of implementation agreements

Partnership Agreements are not developed during the initial phases of implementation (as opposed to the Intergovernmental and Bilateral Agreements, which were developed before implementation began). Partnership Agreements are developed when a Regional NRM Body has completed the development of their Regional NRM Plan. Within the Condamine Catchment, the Regional NRM Body (the Condamine Alliance) had no formal interaction or implementation framework until late 2004, despite the National Action Plan being introduced as a nation-wide policy initiative in the later stages of 2000.

The National Action Plan has introduced changes to the institutional and procedural arrangements for natural resource management. These changes have altered the roles of government, community, and industry stakeholders, and the way that they interact when making decisions. The rhetoric surrounding the National Action Plan presents these changes as an opportunity to develop an integrated approach to resource management (see Commonwealth Department of Agriculture, Fisheries, and Forestry – Australia, 2000). To determine if this is the case, it is necessary to investigate the way natural resource management is implemented.

4.3.1 Substantive changes to natural resource management

As discussed in section 4.2, the National Action Plan introduced new funding arrangements for natural resource management. Of the National Action Plan's \$1.4 billion investment through the 2000-2007 period, Queensland has been allocated \$162 million for implementation (\$81 million being contributed by the Commonwealth and \$81 million by the Queensland government). The National Action Plan has also introduced new implementation arrangements for natural resource management.

The substantive changes to natural resource management that the National Action Plan introduced advances the substantive objectives of IREM (discussed in section 2.3.2). The National Action Plan targets 20 regions (called Priority Action Regions) throughout Australia, with five regions being located in Queensland (see Figure 4.1). These Priority Action Regions are spatially defined by river catchments, except in the case of the Condamine/Balonne/Maranoa catchment. This geographically large catchment has been split (for administrative purposes) into two regions: the Condamine sub-catchment and

the Balonne/Maranoa sub-catchment. This change promotes resource management at naturally, not politically defined scales.

The National Action Plan seeks to advance a *holistic* approach to management by coordinating multiple planning processes that each affect natural resource management. Firstly, Commonwealth State and local government planning processes affecting natural resource management within the region need to be identified. Secondly, the outcomes (or potential outcomes) of these planning processes need to be evaluated against the goals, targets and strategies of the Regional NRM Plan. Finally, processes that do not support the Regional NRM Plan must be modified. Table 4.1 identifies a range of planning processes that may be operating within each Priority Action Region in Queensland.

An *interconnected* approach to natural resource management is encouraged firstly, through a requirement that preliminary research be undertaken before developing the Regional NRM Plan and, secondly, by requiring that the Regional NRM Body undertake an assessment of the environmental, social and economic impacts of the Regional NRM Plan. Preliminary research requires the Regional NRM Body to identify a) baseline conditions of important variables and key regional characteristics that affect natural resources, b) stakeholders, planning processes and existing plans that influence natural resource management and, c) existing natural resource conditions and trends within the catchment (including social and economic issues). Identifying the impact of the Regional NRM Plan helps to identify the intended and unintended consequences of management actions and strategies.

The National Action Plan seeks to encourage a *goal-oriented* and *strategic* approach through the requirement that Regional NRM Plans identify, and outline strategies to work towards, three types of targets:

- aspirational targets (long term e.g. 50+ years)
- achievable resource condition targets (medium term e.g. 10-20 years);
and
- targets for management actions (short term e.g. 1-5 years).

Table 4.1: Commonwealth, State and local government planning processes potentially operating within each region.

Commonwealth	State	Local
Commonwealth Recovery Plans for endangered species and communities	Vegetation Management Planning	Local government Planning Schemes
Great Barrier Reef Management plans and Threat Abatement Plans	Regional Coastal Management Plans	Pest Management Plans
Regional Forestry Agreements	Regional Conservation Plans	Local Conservation Plans
	Regional Frameworks for Growth Management	Land Utilisation Strategy Plans
	Water Resource Planning	Irrigation Area Management Plans
	Soil Conservation Project Area Plans	Resource Operation Plans
	State Recovery Plans for endangered species and communities	

These targets are integral to the planning process as they provide the framework for, and largely determine the content of, the Regional NRM Plan. They are strategic in nature and constitute goals that stakeholders will work towards achieving. These targets are also meant to play a coordinative role, whereby they integrate targets from other planning processes into a single, holistic approach to natural resource management.

Achieving these substantive objectives will require an iterative and adaptive approach to the development and implementation of the plan. It will also require government agency, Regional NRM Body and wider community/industry stakeholders to work in collaboration with each other. To encourage such an approach, the National Action Plan introduces procedural changes to the ways natural resource decision-making and implementation is undertaken.

4.3.2 Procedural changes to natural resource management

The signing of the Intergovernmental and Bilateral Agreements redefined the roles and responsibilities of natural resource management stakeholders, and instituted changed decision-making processes. These changes have a significant influence over resource management decisions and outcomes. Under the National Action Plan, the process for undertaking natural resource management commences with the recognition of a Regional NRM Body (in the Condamine Catchment this is the Condamine Alliance). Once this has occurred the Regional Body is charged with developing a Regional NRM Plan. The process by which the Regional NRM Plan is to be developed includes seven phases (described in Figure 4.2).

There are a number of stakeholders involved in developing a Regional NRM Plan. Within the Condamine Catchment stakeholders include government agencies, local government representatives and community/industry interest groups. A conceptual diagram of the key stakeholder organisations and their involvement in natural resource management under the National Action Plan is presented as Figure 4.3. This diagram indicates the degree of influence over policy and decision-making each organisation possesses.

Under the Bilateral Agreement the Condamine Alliance (drawing on the expertise of the Technical Advisory Committee) has the responsibility of developing and implementing the Regional NRM Plan for the Condamine Catchment. As a non-statutory authority the Condamine Alliance relies on its partnership with State and Commonwealth governments for the statutory authority to develop and implement this plan. To ensure that the Regional NRM Plan does not contravene the legislation or policies of its government investors the National Action Plan institutes a hierarchical decision-making structure.

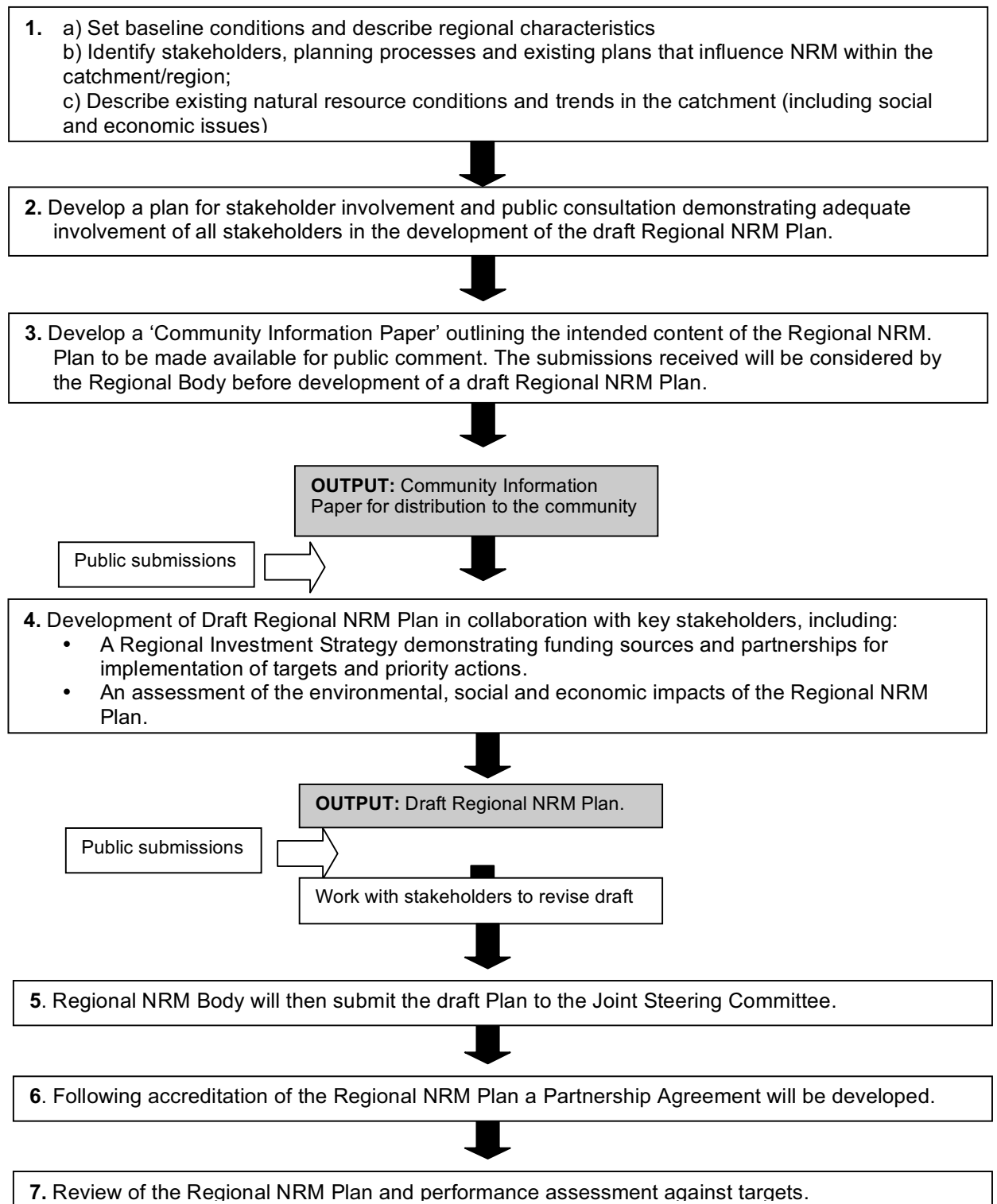


Figure 4.2: The process for developing a Regional NRM Plan⁴

⁵ The information contained in this figure has been compiled by the author from the following sources; Queensland Department of Natural Resources & Mines. 2002. *(Draft) Guidelines for Developing a Regional Natural Resource Plan in Queensland*, Department of Natural Resources & Mines. Commonwealth of Australia. 2000. *Intergovernmental Agreement on a National Action Plan for Salinity and Water Quality*, Commonwealth of Australia, available online: www.napswq.gov.au/publications/iga.html Commonwealth of Australia, & The State of Queensland. 2002. *An Agreement between the Commonwealth of Australia and the State of Queensland for the Implementation of the Intergovernmental Agreement on an National Action Plan for Salinity and Water Quality*, Commonwealth of Australia, available online: www.napswq.gov.au/publications/bilaterals/qld/index.html

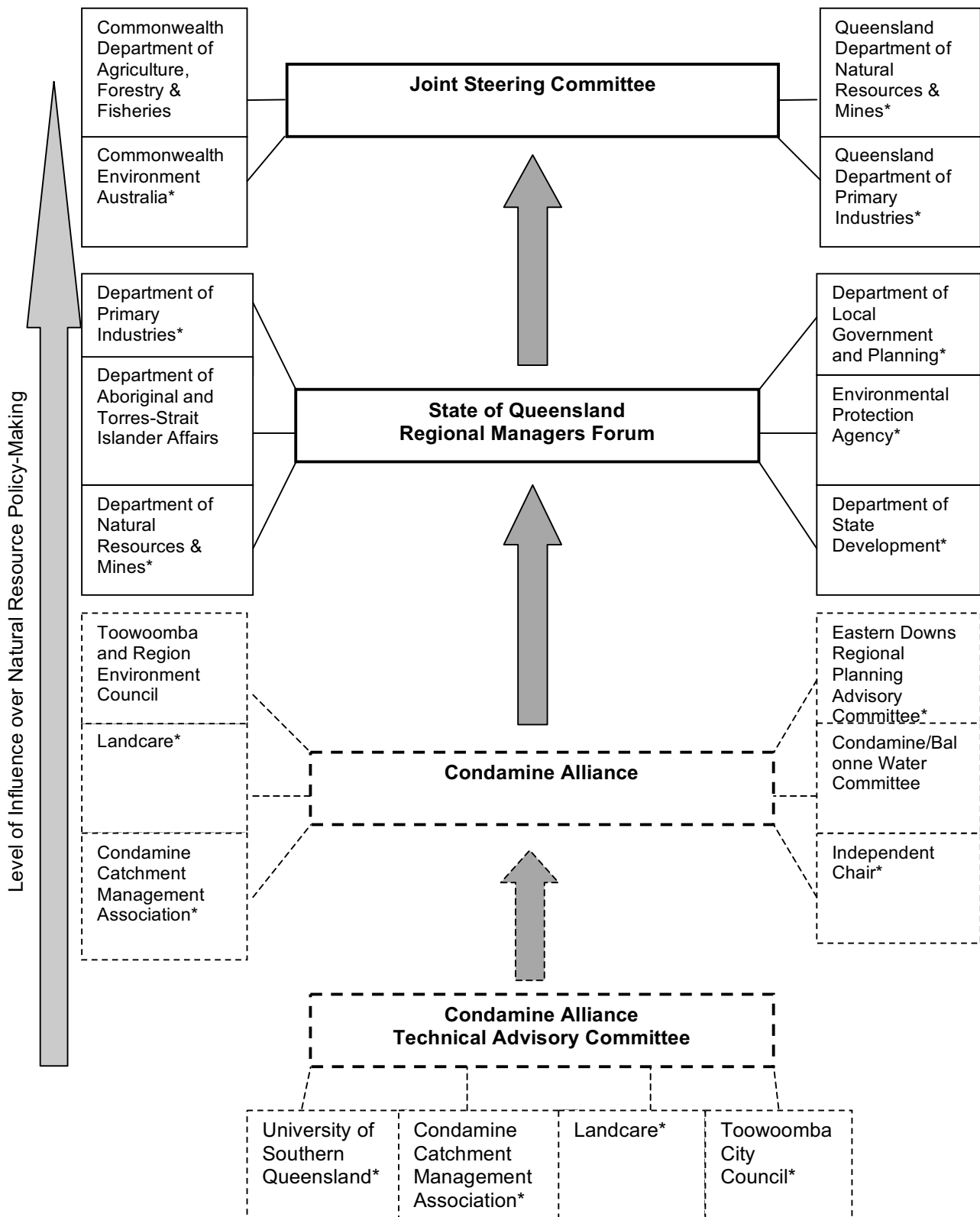


Figure 4.3: Hierarchy of natural resource management organisational stakeholders and their member organisations.

Unbroken lines indicate organisations with statutory authority and dashed lines indicate those without statutory authority.

*Representatives of these organisations were interviewed for this research

The State and Commonwealth governments “oversee” the development of the Regional NRM Plan and retain final control through the plan accreditation process (both levels of government must sign off on the Regional NRM Plan before it can be implemented). First, the Condamine Alliance must gain approval from the Queensland Government through the Regional Managers Forum, a conglomeration of relevant State agencies designed to form a coordinated assessment and response to the Condamine Alliance’s plans. Second, the Joint Steering Committee holds the final power to accredit the Regional NRM Plan. This committee is made up of representatives from both the State and Commonwealth governments, whom represent the most powerful natural resource management agencies of both levels of government.

The design of this decision-making structure has three main consequences for the Condamine Catchment. Firstly, the elevation of the Condamine Alliance to a formal stakeholder (albeit without statutory authority) has transferred responsibility for the development of natural resource management plans from State agencies to an organisation of local government and community-based stakeholders. Secondly, the design of the decision-making process is such that, despite being a formal stakeholder with the responsibility to develop and implement the Regional NRM Plan, the Condamine Alliance holds relatively little influence over the policy direction for natural resource management. Finally, the decision-making structure establishes the Commonwealth as an influential partner with the State government in policy formulation in the natural resource sector. These changes to the institutional arrangements can offer both positive and negative outcomes for natural resource management.

The elevation of Regional NRM Bodies to formal stakeholders presents two barriers to improving natural resource management. Firstly, it has further complicated stakeholder relations. Secondly, the structure requires the Regional NRM Bodies to undertake a role they may not have the experience or capacity to achieve. The devolution of responsibility to Regional NRM Bodies complicates stakeholder relations because the National Action Plan has redefined the role of the State in natural resource management.

State agencies have traditionally held control over policy-making and implementation in the resource sector. Under the National Action Plan, State agencies are asked to play the role of information, service and funding provider. This represents a reduction in the level of control State agencies possess over

natural resource management, and subsequently will result in a reduction of funding. Any allocation of resources to the Regional NRM Body from the Commonwealth will likely come at the expense of State agencies (Jennings & Moore 2000: 186).

The responsibility for the development of the Regional NRM Plans now belongs to the Condamine Alliance. The capacity of the Condamine Alliance to undertake this task will have a large influence over the quality of this plan. The expectation is that Regional NRM Bodies will act as the linkage, or 'information conduit' between governments and regional communities (National Action Plan Capacity Building Working Group 2001: 2). To achieve this, the Regional NRM Body must have the capacity to forge relationships with key stakeholders. These relationships are critical to the development of a holistic approach to management whereby information, knowledge and resources are shared.

As access to information is regarded as a demonstration of power in policy circles (Healey & Ascher, 1995; Stevenson & Greenberg, 2000) the capacity of the Condamine Alliance to develop and manage the relationships necessary to achieve a collaborative approach will be tested. Establishing working relationships may prove challenging as the introduction of a new natural resource management planning process and increasing the availability of funding can stimulate stakeholder competition for resources and power (see Stevenson & Greenberg, 2000; Klijn, 1996). Conflict emerges as stakeholders compete to increase their influence over the policy-making process to achieve outcomes that maximise individual benefits (Klijn, 1996).

Conflict may also emerge from the elevation of the Commonwealth as an influential partner in natural resource management. This elevation provides the Commonwealth with the power to become actively involved in natural resource management, allowing them not only to introduce reforms into the natural resource sector, but also to directly influence outcomes through the accreditation of Regional NRM Plans and the allocation of funding. Scanlon (2001) identifies two benefits of the Commonwealth's increased involvement in natural resource management. These include a demonstration of national leadership for the issue of salinity and water quality, and the commitment of additional resources to tackle natural resource issues. However, the partnership arrangement between the Commonwealth and State governments has the potential to lead to conflict between these two levels of government. Conflict can

emerge if accreditation of Regional NRM Plans and the design of funding arrangements become forums for intergovernmental politicking.

While the substantive aims of the national Action Plan are clearly articulated, it is less certain how the procedural elements of this policy initiative advance these aims. The rhetoric of the National Action Plan promotes collaboration as the way to achieve the substantive aims of this policy initiative. However, the above analysis of the institutional arrangements framing the National Action Plan identifies many barriers to collaboration. To understand how this divergence between rhetoric and the actual design of procedural arrangements affect decisions and outcomes it is necessary to investigate how the introduction of the National Action Plan has altered natural resource management within the Condamine Catchment.

4.4 Natural resource management in the Condamine Catchment

4.4.1 Before the introduction of the National Action Plan

The Condamine Catchment has a long history of collective approaches to natural resource management, beginning in the 1960s and 1970s when the (then) Queensland Department of Primary Industries sponsored the development of Soil Conservation Groups (pers. comm., Participant D). These early initiatives provided the foundation from which the first truly regional approaches began to emerge in the late 1980s and 1990s (pers. comm., Participant D; Participant O). These regional approaches were driven by initiatives such as the Commonwealth initiated Landcare program, the success of the Murray-Darling Basin initiative, and the commitment of the Queensland government to Integrated Catchment Management (pers. comm., Participant O).

This history has provided a rich web of stakeholder interactions and has helped shape the structure of key organisations. The organisational stakeholders for natural resource management in the Condamine Catchment, and the planning processes they are engaged in, are described in Table 4.2. Prior to the introduction of the National Action Plan, State government agencies, local governments and the Queensland Murray-Darling Basin Committee were responsible for policy formulation, implementation and communication of information to landholders and non-government organisations. Non-government organisations (including local Landcare groups, Condamine Catchment

Management Association) worked to identify local problems, lobbied for action/funding and (when funding was received) carried out on-ground remedial work.

The State agency holding the most influence over natural resource management in the region was the Queensland Department of Natural Resource & Mines. Other important government stakeholders included the (Queensland) Environmental Protection Agency (administering endangered species and protected habitat legislation) and the Queensland Department of Primary Industries (responsible for rural community social and economic well-being). Local governments administered their responsibilities both individually and regionally through two organisations, EDROC and EDRPAC.

EDROC is an organisation of councils from the eastern end of the Darling Downs that was formed to create a regional approach to economic development (among other things). Membership of the EDROC contains many, but not all local governments within the Condamine Catchment. This organisation is dominated by the powerful urbanised local governments located at the eastern edge of the catchment, including Toowoomba City Council. The western, agricultural based, local governments were not invited to join (pers. comm., Participant D). EDRPAC is a second local government organisation. This organisation was formed to develop and implement region-wide strategies. It was developed in response to pressure from the State government who wanted a single regionally representative organisation to consult and deal with when undertaking regional planning following the introduction of *The Integrated Planning Act 1997*.

Table 4.2: Organisational stakeholders and the role that they play in natural resource management in the Condamine Catchment

Organisational Stakeholder	Statutory/ Non-Statutory Authority	Natural Resource Management Planning Processes Involved in Administrating
Commonwealth Department of Agriculture, Fisheries, and Forestry – Australia*	Statutory	National Action Plan
Queensland Department of Natural Resources & Mines*	Statutory	National Action Plan Vegetation Management Planning Water Resource Planning
Queensland Department of Primary Industries*	Statutory	National Action Plan
(Queensland) Environmental Protection Agency*	Statutory	National Action Plan Species Recovery Plans Protected Area Management Plans Biodiversity Conservation Plans
Department of Local Government & Planning*	Statutory	Regional Planning Regional Growth Management Accrediting Local Government Planning Schemes
Queensland Department of State Development*	Statutory	National Action Plan
Queensland Department of Aboriginal & Torres-Strait Islander Commission	Statutory	National Action Plan
Eastern Downs Regional Organisation of Councils (EDROC)*	Non-Statutory	Regional Planning Regional Economic Development
Eastern Downs Regional Planning Advisory Group (EDRPAG)*	Non-Statutory	Regional Planning
Condamine Alliance*	Non-Statutory	National Action Plan
Condamine Catchment Management Association*	Non-Statutory	Integrated Catchment Management
Landcare*	Non-Statutory	Local-Scale Natural Resource Management
Queensland Murray-Darling Committee*	Non-Statutory	Integrated Catchment Management

* Representatives from these organisations were interviewed for this research

Community-based natural resource management was undertaken by local Landcare groups and the Condamine Catchment Management Association. Landcare groups (made up of local landholders) have typically addressed natural resource issues and the farm or local scale, while the catchment management association has attempted to address natural resource issues from a regional or catchment-wide scale. The Condamine Catchment Management Association (initiated in 1992) was born out of Queensland's Integrated Catchment Management strategy, developed after Queensland became informally involved in the Queensland Murray-Darling initiative (pers. comm., Participant O).

The catchment management association seeks to achieve a collective approach to natural resource management through its broad membership base. Membership includes representatives of local and State governments, industry, local landholders, and concerned citizens. It is an organisation historically funded by the State government (delivered through The Queensland Murray-Darling Basin Committee) in the form of operating grants and funding for special projects (all members are volunteers). The final key stakeholder in the Condamine catchment is the Queensland Murray-Darling Committee. This organisation can best be described as a quasi non-government organisation. The Queensland Murray-Darling Committee holds close ties to the Department of Natural Resources & Mines and administers natural resource management through formal committees with elected representatives. All staff are paid employees.

Despite a history of collective approaches the history of natural resource management in the Condamine Catchment has been far from conflict free. There has been a history of distrust between certain local governments and the Queensland Murray-Darling Committee (pers. comm., Participant J). There has also been conflict and distrust between members on the executive of the Condamine Catchment Management Association and the Queensland Murray-Darling Committee (pers. comm., Participant E). Tensions have also existed between Landcare groups and the Condamine Catchment Management Association, stemming right back to when the catchment management association was first developed (pers. comm., Participant U).

The reasons for these conflicts have been attributed to a lack of confidence in the ability of organisations to undertake their work (pers. comm., Participant J),

suspicion and scepticism over the real agenda of these organisations (pers. comm., Participant U), and a result of personal conflicts between individuals (pers. comm., Participant E). It was into this context that the National Action Plan was introduced.

4.4.2 After the introduction of the National Action Plan

A key requirement of the National Action Plan was the development of a community-based stakeholder organisation to act as the Regional NRM Body. It is this body, through interactions with the State and Commonwealth governments and the wider community, which has the responsibility to develop the Regional NRM Plan for the Condamine Catchment. Within the Condamine Catchment the Condamine Alliance became the organisation recognised as the Regional NRM Body. Describing the development of the Condamine Alliance, and the process by which it gained accreditation as the Regional NRM Body illustrates how the introduction of the National Action Plan influenced stakeholder relations within the Condamine Catchment.

The genesis of the Condamine Alliance has its roots in the actions of the Condamine Catchment Management Association and their attempt to forge a relationship with local government interests. The Condamine Catchment Management Association did this by cultivating a relationship with EDROC. This push emanated from certain members of the executive committee of the Condamine Catchment Management Association (pers. comm., Participant R; Participant V; Participant U; Participant S) and stemmed from a desire to extend the opportunities for the catchment management association to influence natural resource management within the region.

The voluntary nature of the Condamine Catchment Management Association, and a lack of reliable funds, meant that to have a strategic influence over natural resource management, the Condamine Catchment Management Association needed to develop a relationship with another powerful stakeholder. The catchment management association began to develop a relationship with EDROC as early as late 2000 (Condamine Catchment Management Association: n.d. [b]). The relationship seemed to develop quite fast because, by late 2001, the Condamine Catchment Management Association and EDROC had developed a formal partnership and were vying to gain accreditation as the

Regional NRM Body under the National Action Plan (pers. comm., Participant U; Brazil: n.d. [b]).

This partnership arrangement suited the objectives of both the Condamine Catchment Management Association and EDROC; but for different reasons. The Condamine Catchment Management Association is a regional organisation delivering Integrated Catchment Management in the Queensland Murray-Darling Basin. As such, the catchment management association received funding (both for administration and for projects) through the Queensland Murray-Darling Basin Committee, which provided an administrative arm and link to government for the whole of the Queensland Murray-Darling Basin.

Some members of the Condamine Catchment Management Association's executive committee did not like this arrangement, feeling that the Queensland Murray-Darling Basin Committee was not allocating funds in the Condamine Catchment or supporting the catchment management association as they saw fit (pers. comm., Participant U; Participant S; Participant E). Relationships between the catchment management association and the Queensland Murray-Darling Basin Committee were also strained by individual personality conflicts between members of both organisations' executive committees (pers. comm., Participant E). These personal conflicts further encouraged the executive of the Condamine Catchment Management Association to separate from the Queensland Murray-Darling Basin Committee.

At this time the National Action Plan was introduced. The executive committee of the Condamine Catchment Management Association saw the funding available through the National Action Plan as an opportunity to end their reliance on the Queensland Murray-Darling Basin Committee (pers. comm., Participant S). To do this, however, the catchment management association needed to convince the State and Federal governments, as well as the community, that they were a more appropriate organisation to form the Regional NRM Body (they were competing with the Queensland Murray-Darling Committee for this recognition at the time). Knowing that they did not hold the standing in the community nor the political strength to do this, the Condamine Catchment Management Association realised the need to form an alliance with another stakeholder that possessed these attributes.

This desire to split from the Queensland Murray-Darling Committee did cause tensions within the Condamine Catchment Management Association. Some members were happy with the relationship with the Queensland Murray-Darling Committee and did not see the need for the split. These members believed that the best arrangement would be for the Queensland Murray-Darling Committee to become the Regional NRM Body with the Condamine Catchment Management Association as a subsidiary body beneath it (pers. comm., Participant U; Participant F).

Support for the split was eventually gained, and a formal partnership was formed with local government interests to form the Condamine Alliance. The Condamine Alliance competed with the Queensland Murray-Darling Committee for the right to become the Regional NRM Body, and won. A key reason why the Condamine Alliance won was the support of the local government sector. The State and Commonwealth government believed this sector to be critical in delivering the National Action Plan, and acknowledged the Condamine Alliance as the Regional NRM Body.

The motivations for EDROC to form an alliance with the Condamine Catchment Management Association were similar to those of the catchment management association in that they revolved around money and power. By gaining representation on the Regional NRM Body, EDROC would increase the influence they have over natural resource management in the region, and would be responsible for administering large sums of money for the development and implementation of the Regional NRM Plan.

The State government soon made it clear that to gain accreditation as the Regional NRM Body there must be representation from all local governments in the catchment. EDROC, comprised of only the eastern local governments, did not fit this criteria. EDRPAC, however, is representative of all local governments and was advanced as the organisation representing the local government sector on the Condamine Alliance. EDROC members all are members of EDRPAC, and it has been acknowledged from one EDRPAC member that EDROC really controls the direction of EDRPAC (pers. comm., Participant S). EDROC represents the real political strength behind the Condamine Alliance (pers. comm., Participant S).

Within the network of stakeholders involved with the National Action Plan, including members of EDRPAC, it was widely accepted that EDROC became involved and pushed for the Condamine Alliance to be recognised as the Regional NRM Body to increase control over the distribution of money within the Condamine Catchment (pers. comm., Participant S; Participant B; Participant O; Participant C). There is also a further view that local government interests in the Condamine have an agenda for gaining control of the distribution of these funds:

EDRPAC seem to have a view that the Condamine Alliance and the [Regional] NRM Plan will deliver a lot of things that they want. They want the Condamine Alliance to be a vehicle to get a lot of their planning done. This, however, is not part of their brief and could be a source of tension in the future. (pers. comm., Participant C)

Embedded within this statement is the perception that local government, or at least some representatives of this sector, view the National Action Plan as a means to get the Commonwealth and State government to fund actions that do not fulfil the objectives of the National Action Plan. Such action would strain relations with both government and community-based stakeholders.

The introduction of the National Action Plan to the Condamine Catchment generated conflict as stakeholder organisations competed to control how natural resource management is implemented, and over the distribution of funds. By introducing new funding arrangements and changing the power dynamic within the Condamine Catchment, the National Action Plan broke the status-quo that existed between organisations such as EDROC, the Condamine Catchment Management Association and the Queensland Murray-Darling Committee, creating a power vacuum that these organisations attempted to fill.

Competition produced winners (members of the Condamine Alliance) and losers (those organisations not gaining membership on the Condamine Alliance). And the conflict did not end there. Investigating the structure of the Condamine Alliance demonstrates the ongoing nature of the conflict.

4.4.3 The structure of the Condamine Alliance

The dominant role that the Condamine Catchment Management Association and EDRPAC played in the formation of the Condamine Alliance had consequences for other stakeholders in the Condamine Catchment. Given the objectives of

these two organisations for developing the Condamine Alliance, it is of no surprise that they were unwilling (particularly EDRPAC) to share power with other community-based stakeholders. However, under the Bilateral Agreement, Regional NRM Bodies must have a majority of community members and must represent all of the key (non-government) stakeholders of the region. This requirement meant that the Condamine Alliance must contain representation from interests such as the farming and conservation sectors.

As organisations representing these interests, Landcare, the Toowoomba and Region Environment Council, and Condamine-Balonne Water Committee were approached to join the Condamine Catchment Management Association and EDRPAC on the Condamine Alliance. EDRPAC demonstrated that they were unwilling to share decision-making power with these organisations by proposing a model of representation that favoured EDRPAC, giving them a majority of places on the Condamine Alliance (pers. comm., Participant B). This would have had the result of giving EDRPAC control over all decision-making (decisions are made within the Condamine Alliance by majority vote).

Seeing the dangers of giving control to one stakeholder group, Landcare and the Toowoomba and Region Environment Council refused to become members. Without the representation of these key stakeholder sectors, the Condamine Alliance could not form the Regional NRM Body. EDRPAC relented, and agreed to a Board structure that ensured no single stakeholder organisation could control the Condamine Alliance (pers. comm., Participant B). This conflict during the development of the Condamine Alliance had the result of creating tense relationships between stakeholders even before the development of the Regional NRM Plan had begun.

The eventual make-up of the Condamine Alliance included representatives from EDRPAC, the Condamine Catchment Management Association, Toowoomba and Region Environmental Council, Landcare, and the Condamine-Balonne Water Committee (see Table 4.3). Table 4.3 demonstrates that no single member organisation has control over decision-making. However, it does demonstrate that if EDRPAC and the Condamine Catchment Management Association act as a single entity, they collectively have the numbers to dominate over the other interests.

Table 4.3: Organisational stakeholders and their representatives on the Condamine Alliance

Condamine Alliance Membership	
Organisation	Stakeholder
Eastern Downs Regional Planning Advisory Committee (EDRPAC)	Cr. Dianne Thorley – Mayor Toowoomba City Council* Cr. Ron Bellingham – Mayor Warwick Shire Council* Cr. Paul Antonio – Mayor Millmerran Shire Council* Cr. Bill McCutcheon – Mayor Chinchilla Shire Council*
Condamine Catchment Management Association	Mr. David Brown – Chair and Local Landholder* Dr. Simon Lott – Representative of the Agricultural Industry Body (Agforce)* Ms. Donna Moodie – Community member concerned about the impact of decisions on the indigenous people of the region* Ms. Bobbie Brazil – Local Landholder
Landcare	Mr. David Curtis – Local Landholder* Mr. St. John Kent – Local Landholder* Ms. Glenys Bowtell – Local Landholder
Toowoomba and Region Environment Council Inc.	Mr. James McKee
Condamine/Balonne Water Committee Inc.	Mr. Barry O'Shea Mr. Neville Hartwig
Independent Chair	Dr. Katherine Galea*

*Participants interviewed for this research

The Condamine Alliance is listed as a private company. It was a decision proposed by EDRPAC, and supported by all member organisations. Under this model each member organisation became a shareholder in the Condamine Alliance, and gained representation on the board of directors. The structuring of the Condamine Alliance as a private company does have a number of consequences. Advantages of this structure include that the strict administration, governance and accounting rules that govern companies are applied to the Condamine Alliance, ensuring that the organization is transparent and accountable in a fiscal sense (pers. comm., Participant L).

The disadvantages of this structure include that board meetings are not open to the public or to government stakeholders as all “outsiders” must be invited in by the Board, and directors sitting on the Board are not elected but are appointed by the shareholders (who in this case are the five member organisations) (pers. comm., Participant L). These requirements reduce transparency with regards to the decision-making process. Another disadvantage of a private company is that it restricts flexibility in decision-making (pers. comm., Participant L).

4.5 An evaluation of the institutional arrangements for natural resource management in the Condamine Catchment

New institutional arrangements introduced by the National Action Plan have altered the way in which natural resource management is undertaken in the Condamine Catchment. Critical changes include the introduction of new organisational stakeholders into the decision-making process, and changes to the roles and responsibilities of traditional stakeholders. Through the application of the evaluative framework developed in Chapter Two (see section 2.6, Table 2.3) this section evaluates whether the institutional arrangements of the National Action Plan (when viewed in the context of the Condamine Catchment) advance the substantive objectives of IREM.

4.5.1 What are the significant economic, social, political, cultural, and biophysical issues for the community/region? Do these issues affect natural resource management?

Sections 1.4, 4.3, and 4.4 provide a rich description of the economic, social, political, cultural, and biophysical context of the Condamine Catchment. To varying degrees all of these aspects of a region shape decision-making, but

some have more influence than others. Through analysis of decision-making structures, observation of decision-making in action, and interviews with key stakeholders, the significant issues affecting natural resource management within the Condamine Catchment were identified as political ones.

Political manoeuvring by both the State and Commonwealth governments have altered the traditional roles that these stakeholders play, and have created uncertainty and instability. Natural resource management objectives have been relegated to a secondary consideration. The primary concern of stakeholders seems to be positioning themselves to be able to capitalise on future opportunities. To demonstrate, the changing roles, and the motivations underpinning these changes, of Commonwealth and State government are discussed in turn.

The elevation of the Commonwealth government to a formal stakeholder in natural resource management has effectively created an extra layer of bureaucracy. The consequences of this action are described by one State agency representative:

[A]dding that extra layer of government in that partnership exercise just adds more bureaucracy. If you are reviewing a draft plan the big network that it has to go through is just that much bigger, and hence that all gets fairly cumbersome. And it takes time. That is why I think one of the Regional NRM Body's frustrations is that government is saying here is a billion dollars of National Action Plan money, ... now go out and do some stuff and deliver some outcomes, but here is all the red tape to bind you up to make that pretty challenging (pers. comm., Participant C).

The elevation of the Commonwealth has introduced another stakeholder into the natural resource decision-making. This action has increased reporting requirements and has necessitated additional approvals before action can be taken (pers. comm., Participant W; Participant C; Participant M). The involvement of the Commonwealth in natural resource management has introduced a more rigorous, and hierarchical, structure to decision-making.

The hierarchical approach to decision-making has primarily resulted from the role that the Commonwealth government has adopted - one that can be described as overseer of the implementation of the National Action Plan (see section 4.3, Figure 4.3). Within the State agencies and community-based stakeholder organisations involved in implementing natural resource

management, this role has caused concern because it signifies a change to the way natural resource management has traditionally been undertaken:

In the way we have set our federation up it is probably States working with communities, and I think that is why natural resource management and a whole heap of things are State responsibilities. So that implementation/doing has been traditionally from that level ... The Commonwealth increasingly want to get into the implementation stuff. But they have got no background or even in some ways a feel for that. (pers. comm., Participant C)

The Commonwealth probably play a larger role than I would like them to. When it comes to the approval of things, they seem to want to micromanage everything. And yet, they don't have the understanding to do that. (pers. comm., Participant M)

These comments describe a lack of experience and understanding as the reason why State agency and community-based stakeholders are opposed to the role the Commonwealth has adopted in natural resource management. Further examination identifies that there is another, more fundamental reason that relates to the changing power dynamic introduced by the new institutional arrangements.

The Commonwealth describes their recent incursion into natural resource management as a move designed to 'protect their investment' under the National Action Plan (pers. comm., Participant N). The Condamine Alliance and State agency stakeholders hold a more cynical view.

Clearly the Commonwealth's levers that it has in natural resource management are money. If the Commonwealth wants to achieve certain outcomes in natural resource management it has to rely a fair bit on money and partnership approaches. The National Action plan is a very key example of that partnership approach ... You do certain things and you get certain monies. That is the main lever that they have got. (pers. comm., Participant O)

State agency representatives (e.g. pers. comm., Participant C; Participant O) perceive that the National Action Plan has been a way for the Commonwealth to buy their way in to natural resource management in an effort to implement a certain agenda. Similarly, members of the Condamine Alliance (e.g. pers. comm., Participant Y; Participant S; Participant M) perceive the National Action

Plan as a policy designed by the Commonwealth to pursue its own agenda. While most participants were unsure what this agenda might be, one community stakeholder commented that the National Action Plan was a policy designed 'to bypass the State government to invest power into the regions, into the community' (pers. comm., Participant M).

Just as the National Action Plan has provided the Commonwealth the opportunity to alter its role in natural resource management, the State government has similarly grasped the opportunity to redefine its own role. There is a perception amongst some State agency representatives (pers. comm., Participant C; Participant Q), and reflected in the perceptions of community-based stakeholders (pers. comm., Participant P; Participant T), that the State government has used the introduction of the National Action Plan as a pretence to alter its involvement in natural resource management towards a more regulatory role. This transition is described by a State agency representative:

I believe the reality is that State governments are withdrawing. Their intention is to withdraw from the provision of service delivery, in terms of information and knowledge, and they are moving all towards regulation and control. (pers. comm., Participant Q)

The reason behind the adoption of this regulatory role was best articulated by one State agency representative:

[O]ne of our challenges is that very issue of being both partner and scrutiniser. If you go to the dictionary, scrutiniser says examiner. So I [the State government] am partnering them [the Condamine Alliance], and partnerships usually have lots of trust in it. Being a scrutiniser means you don't trust them. ... I think what drives most of that is the public accountability thing. There is [more of] a thing about spending government money than there is about spending private money. ... So it is watching and making sure it is being spent wisely. (pers. comm., Participant C).

The reasoning behind this statement is that a regulatory role is necessary in order to ensure public money is being spent wisely. In short, it is all about protecting their investment. This reasoning is the same as that advanced by the Commonwealth as the reasons why the Commonwealth has asserted its authority, as partner and equal funding provider of the National Action Plan, to become a stakeholder in natural resource management (pers. comm., Participant N). In this situation a decision-making structure has been

implemented that ensures fiscal accountability. However, this structure encourages a hierarchical approach to decision-making that discourages the collaborative stakeholder relationships necessary to achieve integration under a non-statutory, community-based approach to natural resource management.

Actions by the State government to change its role in natural resource management have been met with the same distrust and scepticism that the Commonwealth has attracted for its changing role. There is a perception within both community-based and government stakeholders that the State government is withdrawing from services it traditionally provided (e.g. community liaising, one-on-one consultation, surveying, and its extension service) with a view that regional bodies such as the Condamine Alliance will fill the gap (pers. comm., Participant U; Participant W; Participant E; Participant S; Participant K; Participant N).

On this issue of shifting responsibility for service delivery it was the State government's position that 'we are moving a bit, we are probably narrowing our natural resource management focus a little bit to let this new mob [the Condamine Alliance] fit into the landscape' (pers. comm., Participant C). The Commonwealth government's perspective, however, is that the State government is withdrawing from services it has the responsibility to provide (and fund) with the expectation that Regional Bodies (who receive half their funding from the Commonwealth) will now provide these services. It is not difficult to see why conflict between the State and Commonwealth has resulted, as this move results in the shifting of half the funding responsibilities for these services from the State to the Commonwealth. It is a cost that the Commonwealth had not intended to fund, as they were not referred to in the Bilateral Agreement between the Commonwealth and Queensland Governments (Commonwealth of Australia & the State of Queensland, 2002).

These actions are also generating conflict between the State agencies and regional stakeholders in the Condamine Catchment, including: the Condamine Catchment Management Association, Condamine Alliance, and the Queensland Murray-Darling Committee. The withdrawal of services is currently being felt within the community (pers. comm., Participant P; Participant E; Participant S; Participant K), but, as yet, the Condamine Alliance has not developed sufficient skills and expertise so it can take over the provision of these services. To compound this, the provision of these services are not outlined as the

responsibility of the Condamine Alliance under the Bilateral Agreement, and the Condamine Alliance do not perceive that it is their job to implement them (pers. comm., Participant M; Participant V; Participant P).

In part, the tensions resulting from the changing roles of both the State and Commonwealth governments can be attributed to a lack of clarity over the roles and responsibilities of stakeholders in the Bilateral Agreement. This lack of clarity has allowed the government stakeholders to interpret the institutional arrangements in a way that advances the political aims of the respective governments. These political aims are not always compatible natural resource management objectives, and have become a focus of inter-governmental tension about adjusting roles and responsibilities.

4.5.2 Do institutional arrangements support integrated management?

The approach to natural resource management introduced by the National Action Plan is one in which a non-statutory, community-based organisation has responsibility for developing and improving IREM plans (with government stakeholders overseeing the process). All action is voluntary, and there is no opportunity for coercive or regulatory measures. To achieve an integrated approach to resource management in this context, stakeholders must cultivate strong relationships and work collaboratively. The institutional arrangements of the National Action Plan do not encourage the relationships necessary to support IREM in the Condamine Catchment.

The institutional arrangements of the National Action Plan discourage collaborative working relations by formalising and structuring stakeholder interaction opportunities. This formalisation of stakeholder relationships has occurred through the introduction of rules that specify how interaction and communication should occur. One example of this formalisation of stakeholder relationships is the way that the Condamine Alliance and State agencies interact.

Interaction between the Condamine Alliance and State agencies is a formal process of making submissions to the Regional Managers Forum (per. comm., Participant J; Participant I; Participant F; Participant G), a forum that meets once per month (pers. comm., Participant F; Participant G). State government stakeholders actively discourage informal interactions between members of

these organisations (pers. comm., Participant J; Participant G; Participant C; Participant M). One of the consequences has been the development of relations between government and regional stakeholders that one State agency representative described as 'more business like' (per. comm., Participant I).

The formalisation of relations has resulted in government stakeholders holding little expectation that they will be able to engage with the Condamine Alliance in a collaborative manner (pers. comm., Participant I; Participant F). In fact, one representative of a State government agency stated that 'it is possible that our only interaction will be right at the end when they give us a draft and we go through it with a red pen' (pers. comm., Participant I). This very scenario occurred when the Condamine Alliance developed its Primary Action Proposal under the National Action Plan (a funding submission to address critical natural resource issues before the completion of the Regional NRM Plan). In this example, the Condamine Alliance only showed the government stakeholders the proposal when they submitted it for approval (pers. comm., Participant I). Formalising stakeholder relationships in this instance has not encouraged the collaborative stakeholder relations necessary to advance IREM within a non-statutory, voluntary context.

4.5.3 Are the roles and responsibilities of stakeholders clearly defined?

Within the Condamine Catchment both community and government stakeholders have identified that the institutional arrangements of the National Action Plan provide a distinct lack of clarity over the roles and responsibilities of key organisational stakeholders (pers. comm., Participant I; Participant G; Participant C; Participant U; Participant A).

Interviewer: Do you believe that the State Government's roles and responsibilities in natural resource management under the National Action Plan have been clearly defined?

Respondent: No. And that is the problem, the very crux of the problem. We have asked the question: what is the role of the [Queensland] Department of Natural Resources and Mines in the future? Is it a regulatory role? We haven't got an answer, and I don't think we are going to get an answer because I don't think anyone knows. (pers. comm., Participant K)

Within the Condamine Alliance, uncertainty over the organisation's role has resulted in a feeling that 'none of us really know where we are heading' (pers. comm., Participant Z). This is a feeling which members of the Condamine Alliance attribute to a failure on the part of the State and Commonwealth government to move to clearly define the role of the Condamine Alliance, or their own role in natural resource management (pers. comm., Participant Z; Participant K). The uncertainty over the roles and responsibilities of key stakeholders can be traced to the Bilateral Agreement between the Commonwealth and the State government. This agreement does not clearly define either the role of the Condamine Alliance or of the State agencies in implementing natural resource management under the National Action Plan.

Both government agency stakeholders and members of the Condamine Alliance have identified a lack of clarity over the roles and responsibilities of key stakeholders as hindering natural resource management in the Condamine Catchment (pers. comm., Participant I; Participant C; Participant G; Participant S; Participant K). While the State agency stakeholders attribute this lack of clarity to the fact that the institutional arrangements of the National Action Plan are still evolving (pers. comm., Participant J; Participant O), members of the Condamine Alliance have developed a number of their own explanations.

These explanations include accusing the State and Commonwealth government of showing poor leadership (pers. comm., Participant K; Participant E), demonstrating a limited ability to communicate effectively with the Condamine Alliance (pers. comm., Participant K), and intentionally not defining roles of each stakeholder organisation in order to abdicate their responsibilities to the Condamine Alliance (pers. comm., Participant S). Whatever the cause of the uncertainty surrounding the roles and responsibilities of key stakeholders, this lack of clarity has led to suspicion by regional stakeholders towards government stakeholders. This uncertainty impedes the implementation of natural resource management.

4.5.4 Does the mandate given to stakeholders allow adaptive management? Can the focus of the collaborative planning process change to suit emerging and changing views?

An adaptive planning process is necessary to address complex and poorly understood natural resource issues (see Mitchell 1997). The degree to which the

Regional NRM Plan planning process is adaptive can be measured in two ways: firstly, the degree to which the actual decision-making processes of the Condamine Alliance (as the organisational stakeholder charged with developing the plan) are adaptive and, secondly, the degree to which the institutional arrangements of the National Action Plan encourage or facilitate the Condamine Alliance in the development of adaptive planning processes.

The Condamine Alliance itself is considered by both members and external observers to be an organisation that is not flexible. The reasons given for this inflexibility include the corporate structure of the Condamine Alliance (see section 4.4.3) (pers. comm., Participant L), and the design of the processes by which it plans to deliver the Regional NRM Plan (pers. comm., Participant W; Participant B). Being a private company, the Condamine Alliance is subject to strict corporate governance and administrative rules. While these rules provide increased accountability with regards to the spending of money (pers. comm., Participant L; Participant H), they also restrict the organisations ability to change or adapt management actions (pers. comm., Participant L). It is not just the structure of the Condamine Alliance that impedes flexibility, but also the planning approach they have adopted.

The model by which the Condamine Alliance plans to develop the Regional NRM Plan can be described as one that aims to “contract out” tasks to private consultants. Under this model the Condamine Alliance adopts the role of project manager, where their main task is to provide the terms of reference and collate the results. By employing consultants to develop the Regional NRM Plan the Condamine Alliance loses the opportunity to engage with the plan at each stage of its development. The result is an inability to make changes “on-the run” if new information comes to light. Also, the Condamine Alliance has not committed to the implementation of the Regional NRM Plan. Consequently, the Condamine Alliance has not yet developed clear monitoring, evaluation and review functions necessary to promote adaptive management.

The narrow focus of the institutional arrangements of the National Action Plan also impedes the development of adaptive approaches to natural resource management:

I guess the objective of the National Action Plan ... it is pretty defined; its concentration is on salinity and water quality. ... When you read the bilateral agreement, they are the two things. So it is not broad natural resource

management it has two focuses, water quality and salinity. ... They are the only two. It is quite narrow. (pers. comm., Participant L)

As the above quote highlights, despite the holistic approach to natural resource management advocated by the National Action Plan, funding under the National Action Plan will only be provided for the implementation of preventative or remedial action to address salinity and water quality issues. This narrow focus has raised concerns from both State agency stakeholders (pers. comm., Participant L) and members of the Condamine Alliance (pers. comm., Participant S). By linking the provision of funding to only two natural resource issues the National Action Plan pre-empts the Condamine Alliance's planning processes. A focus on salinity and water quality has the advantage of targeting funds and effort to address a significant natural resource issue. The disadvantage of this targeted approach is that it limits the Alliance's ability to address broader natural resource issues that may contribute to salinity and water quality problems.

4.5.5 Do stakeholders have control over each stage of the policy cycle (e.g. design, implementation, monitoring, evaluation)?

Despite the assertion of the (then) Deputy Prime-Minister that the National Action Plan 'is a community led action plan or program, not a Canberra-knows-best solution imposed from on top' (Anderson 02/04/01: pg. 26126), the institutional arrangements demonstrate that the National Action Plan is not aimed at developing a genuine collaborative approach to natural resource management. Whether the purpose being to ensure public accountability, a doubt over the capacity of community stakeholders, or a patriarchal view held by government in Australia, the institutional arrangements of the National Action Plan are designed in such a way to ensure that government stakeholders retain control over natural resource management in the Condamine Catchment. This is demonstrated by both the structures put in place to implement the National Action Plan (see section 4.2), and the attitudes of the government stakeholders:

The State's roles ... partly are service support to the Regional Bodies; making sure they are functional, operational, and ensure that they are operating to the best of their ability. ... So we are investors in the bodies and that means, to a certain extent, [that] they are providers while we are policy setters at the State level. (pers. comm., Participant J)

Such comments indicate that the government still perceives itself as controlling the natural resource management policy-making process. This perception is reflected in the comments made by a member of the Condamine Alliance:

We are trying to get governments and what not to involve us in that early decision-making process, rather than telling us [what to do]. ... But I think really the reality is, as a community, we still haven't got a major impact on policies as they are being developed ... (pers. comm., Participant M)

These comments convey the message that the State and Commonwealth government stakeholders have retained control over the natural resource policy-making process. The role of the Condamine Alliance under this scenario is simply as a vehicle for implementing government policy, as opposed to empowering the Condamine Alliance to set the policy direction for the catchment they represent. The way in which government stakeholders have retained control over natural resource management policy is through the development of institutional arrangements that ensure that they have final control over the decision-making process.

The State and Commonwealth governments retain control of the decision-making process through the plan accreditation process. Plans and funding proposals developed by the Condamine Alliance are submitted to representatives of State government agencies (through the Regional Managers Forum) to be assessed. These State agency stakeholders assess these plans, seeks changes from the Condamine Alliance, and provide the final plan (along with their own recommendations) to the Joint Steering Committee, made up of State and Commonwealth representatives (see section 4.3). The Joint Steering Committee makes a final decision as to whether plans are accredited and if funding will be provided. Such a scenario occurred when the Condamine Alliance developed and submitted their Priority Action Funding Proposal (pers. comm., Participant K, Participant M).

Under this model, control over the direction of natural resource policy is maintained by government stakeholders because if it 'doesn't get accredited, it doesn't get funded...' (pers. comm., Participant O). Members of the Condamine Alliance identify that government stakeholders are using the institutional arrangements of the National Action Plan as a way to control the delivery of natural resource management in the Condamine Catchment (pers. comm., Participant Y; Participant Z; Participant M; Participant B). In particular, the State

agency representatives on the Regional Managers Forum have been described as behaving as if ‘they think they own the process’ (pers. comm., Participant Y).

This hierarchical approach to decision-making has also caused tension within State agencies:

The way in which it [the implementation of the National Action Plan] has been handled [demonstrates] ... a lack of well thought through change management process, as demonstrated by the levels of unnecessary levels of aggression and argy bargy and confusion that existed in the community and the [government] stakeholders ... over how the National Action Plan was to be implemented. (pers. comm., Participant D)

Government agencies, and the bureaucrats who represent them, may hold policy goals that are in conflict with those held by their political masters. Political decision-making processes are not necessarily compatible with IREM outcomes:

... I mean the premier says such and such, and we get the job of doing it. I mean [the] government makes decisions [and] we have to implement the policies. And they don't necessarily fit well with some of the other parts of the government's decisions on natural resource management ... (pers. comm., Participant L)

[In the Condamine Catchment] there is potential for over development. It is a very productive area but there is certainly an agenda to increase the number of piggeries for instance, and that is coming from the Premier. And there is potential there for over development, or uncontrolled development. (pers. comm., Participant X)

In the above examples the Premier of Queensland is identified as endorsing the decision-making processes of the National Action Plan while at the same time acting to transcend these processes to push through decisions that reflect a different political agenda. Developing an integrated approach to natural resource management requires consideration of many issues and developing a way to draw together the management action of diverse stakeholders. By circumventing the very process initiated by the National Action Plan to achieve this coordination, government stakeholders are engaging in unilateral action that, while it may have benefits for the government, prevents integrated management.

4.5.6 Are stakeholders provided enough time to develop relationships, share perspectives, and critically examine issues before decisions have to be made?

Implementing IREM is a difficult task. For a community-based organisation, such as the Condamine Alliance, developing the skills and capacity necessary to undertake their task requires time. This is especially true in the Condamine Catchment, considering that the institutional arrangements are evolving, roles and responsibilities are unclear, and relationships between stakeholders are undeveloped. Despite this difficult task there is a distinct lack of guidance or framework to guide the Condamine Alliance in their development. This is acknowledged by one State agency representative:

... Regional Bodies have really been cast to the winds a little bit and, in some ways, formed from nothing. [We have said] hire in whatever skills you need, here is a 200 page guideline of corporate governance, here is all the bilateral guidelines, and all the gump we have produced to say how to produce a good plan and how to produce an investment strategy. And you put your hand up, see what money you can get, and go out and do all that stuff. It is not easy. (pers. comm., Participant C)

As a result of “putting their hand up”, the Condamine Alliance have been tasked with setting up a company, developing a constitution, business plan, investment strategy, and Regional NRM Plan. To undertake this work, government stakeholders expect the members of the Condamine Alliance to develop a high level of strategic board skills, be able to manage large budgets, as well as coordinating the delivery of natural resource management in the catchment (pers. comm., Participant N). Considering most members of the Condamine Alliance are drawn from the community and have limited experience with tasks of this magnitude, developing such capacity quickly is difficult.

Within both the Commonwealth and State level of government, there is an understanding of the difficult nature of the task the Condamine Alliance has been charged with undertaking (pers. comm., Participant J; Participant C; Participant N; Participant D). One State agency representative specifically pointed out that the Condamine Alliance will have difficulty in undertaking their task because they have not yet developed working relationships with other organisational stakeholders involved in natural resource management in the catchment (pers. comm., Participant Q). Despite the recognition of the difficulty of the task, members of the Condamine Alliance stated that they felt as though they were being pushed too hard by government stakeholders to deliver plans, as well as on-ground outcomes, before they were ready:

As a Condamine Alliance we are constantly being pressured into rushing ahead, trying to develop according to instructions that seem to be arriving ad hoc. (pers. comm., Participant K)

Well, it is just the timeliness of things happening. We are expected to turn things around with a week's notice. You don't turn it around, you miss the deadline [and] you don't get the funding. (pers. comm., Participant M)

This perception that the expectations of government stakeholders outweigh the practicalities of what the Condamine Alliance can deliver may be justified, given the comments of one government stakeholder: '[w]e have concerns that Regional [NRM] Plans have taken longer to be gazetted than we first expected, or predicted' (pers. comm., Participant N). In response to these expectations, the Condamine Alliance as a whole has contended that the institutional arrangements concerning the accreditation structures and the roles and responsibilities of key organisational stakeholders are only now beginning to be finalised, and this has constrained their ability to deliver the outcomes expected by government stakeholders (pers. comm., Participant X, Participant S; Participant K). The pressure placed on the Condamine Alliance to produce plans and on-ground works before they have developed the necessary skills and relationships with other organisational stakeholders necessary to undertake the task may have negative consequences for the quality and appropriateness of these plans and actions.

4.5.7 Are stakeholders provided sufficient resources to implement decisions?

The biggest issue concerning resources is the adequacy of funding provided by the National Action Plan. From the time it was first introduced, the National Action Plan has been criticised for not providing enough money to adequately address natural resource issues. This criticism has been widely expressed, ranging from those by Opposition Senators in Federal parliament (see Schacht, 2000a; 2000b; Bolkus, 2000a; 2000b), to State agency representatives (pers. comm., Participant Q), and community-based stakeholders (pers. comm., Participant R; Participant T; Participant W; Participant Y). In response to criticism directed towards the funding arrangements of the National Action Plan in Commonwealth parliament, Senator Robert Hill, then Commonwealth Minister for the Environment remarked:

On the issue as to whether it is enough money, I suspect it will never be enough money. But what I can say is that it is the largest investment ever in these issues by an Australian government. (Hill 08/08/01: 25883)

The largest investment it may be, but if funding is inadequate to address the issues then long-term improvements will not be achieved.

Another factor inhibiting long-term improvements to the natural environment in the Condamine Catchment is the duration of the funding arrangements. The funding program for the National Action Plan is scheduled to last for seven years, and was initiated in the year 2000. While Prime Minister John Howard, at the launch of the National Action Plan, described this timeframe as a 'long-range view' (Howard, 2000: 22151), both State agency and regional stakeholders had concerns that the timeframe was too short to enact real improvements to the natural environment (pers. comm., Participant J; Participant A; Participant K; Participant S; Participant D).

The short timeframe of the National Action Plan has two main consequences. Firstly, the short timeframe is contradictory to the complex and long-term nature of natural resource issues. The fact that the Commonwealth views seven years as a long-range planning horizon demonstrates the difference between the time needed to enact improvements in natural resource issues, and political timeframes. In response, a number of community and government stakeholders have advocated the adoption of a longer-term approach (pers. comm., Participant P; Participant R; Participant D).

Secondly, a short-term approach does not demonstrate a strong commitment by the Commonwealth government to pursuing IREM. As one State agency representative pointed out, without financial backing from the Commonwealth the National Action Plan as a policy initiative would collapse. If this was to happen the collaborative approach to natural resource management, as well as the capacity and relationships built up within the region to support it, would be lost (pers. comm., Participant J). In relation to the time it takes to develop these skills and relationships, seven years appears to be a short-term commitment to achieving IREM.

The level and duration of funding provided by the National Action Plan indicate that the National Action Plan appears to be more like a pilot program to see how these arrangements might work. This is reflected in the attitude, emanating both

from stakeholders within government agencies and the Condamine Alliance, that the National Action Plan is a 'social experiment' designed to identify how well the community can deliver natural resource management outcomes (pers. comm., Participant B; Participant W; Participant C; Participant M). Government stakeholders have stated that future investments in this type of approach will be tied to the success of this experiment (pers. comm., Participant C).

In addition to the level and duration of the funding, the way in which the funding is delivered has created difficulties for the Condamine Alliance:

We are expected to turn around things with a weeks notice. [If] you don't turn it around [and] you miss the deadline, you don't get the funding. And it will sit in Canberra for eight months. Never mind the fact we have an organisation we have set up. How do we pay people? Pay-checks go out every two weeks and we are sitting here but we can't do anything because it took eight months to get the money to give us the where-with-all to get out there and do something. (pers. comm., Participant M)

The process by which funding applications are assessed has come under criticism from the Condamine Alliance as being too bureaucratic. The complexity of the administrative arrangements and the consequent delays in granting approvals and funding were even acknowledged by the State and Commonwealth governments through actions such as the development of a Working Group to investigate opportunities to streamline the accreditation process in November 2003 (see Robertson, 2003a). This Working Group was investigating possible improvements to the accreditation process at nearly the halfway point in the delivery of the National Action Plan. This action indicates that the institutional arrangements for the approval of plans and funding do not adequately support natural resource management.

Even after funding has been approved, the way in which these funds are delivered has caused additional difficulties for the Condamine Alliance. The delivery of funds under the National Action Plan occurs on a project-by-project basis, with the salary of those individuals charged with delivering the projects tied to the funding of the projects themselves. Funding for these projects is typically short-term and this has had an impact over how the Condamine Alliance operates, as described by one Condamine Alliance Board Member:

One of the real difficulties we face is that we can only employ people on twelve-month contracts because that is the continuity of funding we get from the government. (pers. comm., Participant M)

This lack of long-term security has presented the Condamine Alliance with difficulties in attracting people to fill available positions (pers. comm., Participant K). The fact that short-term funding does not provide financial security for the Condamine Alliance and its employees is an issue that was acknowledged by government stakeholders (pers. comm., Participant C; Participant D). Concerns were even raised that these short-term funding arrangements may negatively affect the delivery of the National Action Plan (pers. comm., Participant C).

Despite these concerns, the short-term funding arrangements of the National Action Plan remain in place. One member of the Condamine Alliance describes these funding arrangements as a consequence of institutional arrangements that were designed to make the Regional NRM Body reliant on the government for funding (pers. comm., Participant M). At the very least, the funding arrangements constrain the Condamine Alliance's independence and do not encourage integrated management approaches.

4.6 Conclusion

Institutional arrangements of the National Action Plan are characteristic of recent reforms to the way natural resource management is undertaken in Australia. These reforms include increasing federal government involvement, commitment to regional delivery, and devolution of responsibility for natural resource management to regional stakeholder organisations. The rhetoric of the National Action Plan hails the program as ushering in a new era of collaboration, an approach identified as advancing a strategic and holistic approach to natural resource management. An analysis of the institutional arrangements of this policy initiative does not support this assertion.

The procedural arrangements for developing and implementing the Regional NRM Plans are unclear, and the institutional arrangements devolve little control over natural resource policy-making to regional stakeholders. Control over setting the policy direction for natural resource management is maintained by the State and Commonwealth governments. The institutional arrangements introduced by the National Action Plan focus on achieving broad economic

reforms in the natural resource sector at the expense of establishing a integrated approach to management.

The implementation arrangements of the National Action Plan's have had particular consequences for stakeholder relationships at the regional, State, and Commonwealth level. A lack of direction for how to undertake natural resource management and a failure to encourage real collaboration has encouraged stakeholders to compete, rather than cooperate, for control over decision-making processes.

Four aspects of the institutional arrangements were identified as the key barriers to achieving an integrated approach to resource management, including the:

- hierarchical structure of the decision-making process;
- lack of clarity over stakeholder roles and responsibilities;
- short timeframe for implementation and uncertainty surrounding how it would proceed; and
- inflexible approach to decision-making.

The hierarchical structure of the decision-making process may improve fiscal and political responsibility, but did not encourage stakeholders to work in the collaborative way necessary to achieve integrated management in a non-statutory and voluntary context. Policy formulation, accreditation and decision-making power were vested with State and Commonwealth government stakeholders. This created a situation whereby the Condamine Alliance was dependent on government for approval to take action, and for the money necessary for implementation.

Changes to the way natural resource management is undertaken created the need to redefine the roles and responsibilities of key stakeholders within the region. A lack of clarity as to what these roles would be created a power vacuum that a number of stakeholders sought to fill. Competition, jockeying for position, and politicking dominated the years immediately following the introduction of the National Action Plan. Natural resource management became a secondary consideration during this time, clearly impeding any movement towards integrated approaches to management.

The short time-frame for implementation and the uncertainty surrounding how it would proceed also presented a barrier to achieving an integrated approach. IREM requires detailed scoping of the issues, identification of overlapping responsibilities, identifying synergies, and strategies to work towards agreed goals. Such an approach requires strong stakeholder relationships, time, and a clear and defined process. The institutional arrangements of the National Action Plan did not encourage these important aspects.

Adaptive management is a key component of natural resource management, and of IREM in particular. Decision-makers and resource managers need to be able to react quickly to changing conditions and alter strategies and action when new information is developed. The institutional arrangements of the National Action Plan did not encourage adaptive management. The structured and formalised approach to stakeholder interaction, the narrow focus of the National Action Plan, and the structure of the Condamine Alliance itself created a barrier to adaptive management.

The potential of policy initiatives such as the National Action Plan to improve natural resource management is clear. Under traditional approaches to resource management, responsibility is fragmented and action is often uncoordinated and contradictory. Policy initiatives that draw key stakeholders together to collectively develop regional approaches to natural resource management provide important opportunities to pursue integrated management.

The rhetoric of the National Action Plan certainly encourages the pursuit of integrated outcomes through collaborative and community-based action. The reality is one where both the State and Commonwealth government have been unwilling to devolve real power to the Regional NRM Body. Devolution of responsibility and withdrawal of service provision by government have not been supported by decision-making structures that encourage IREM. Institutional arrangements of the National Action Plan appear to have been designed with political objectives, rather than with resource management objectives in mind.

Chapter five builds on this analysis by examining the influence that characteristics of individual stakeholders and the decision-making process itself have in shaping natural resource management in the Condamine Catchment.

Chapter Five

Analysis II

Natural resource management decision-making processes, participant characteristics, and stakeholder relations in the Condamine Catchment

From the government's perspective:

I would say that in Queensland, the community's capacity to deliver on expectations probably needs more skilling-up, and that is a considerable factor in how successful Queensland has been to date. (pers. comm., Participant N)

The Condamine Alliance is ... manifesting [itself] as a difficult organisation to communicate with, and it is manifesting [itself] as something that is very much regulated, controlled, and isolating itself. (pers. comm., Participant Q)

From the Condamine Alliance's perspective:

One of the difficulties has been the unwillingness at times of the State and Commonwealth government to accept that the community can actually do it. I think it is sort of a big social experiment. I think they [the State and Commonwealth governments] were really waiting for it to fail, or not going out of their way to make sure that it didn't fail put it that way. (pers. comm., Participant M)

5.1 Introduction

This chapter represents the second of two analysis chapters. Building on the analysis of Chapter Four (which investigated institutional and wider external forces) this analyses how the structure of the National Action Plan decision-making processes, and the characteristics of stakeholders engaged within these processes have shaped natural resource management decisions within the Condamine Catchment. Together, Chapter Four and Chapter Five reveal the key forces that shaped decisions and identify whether indicators of an integrative approach to natural resource management exist within the

Condamine Catchment under the National Action Plan. Such analysis provides a foundation for the following chapter (Chapter Six) that compares/contrasts this evaluation of practice with collaborative planning theory. This comparison demonstrates whether collaborative planning theory identified, acknowledges and accounts for the key forces shaping natural resource management within the Condamine Catchment and whether this theory provides opportunities to advance integrated management within the catchment.

5.2 An evaluation of natural resource management decision-making within the Condamine Catchment under the National Action Plan

The evaluation of natural resource management within the Condamine Catchment is structured around the indicators of integrated approaches to management identified in Table 2.4 (see section 2.6). By applying the investigative questions developed within Table 2.4 this chapter aims to evaluate whether natural resource management decisions within the Condamine Catchment under the National Action Plan pursue IREM objectives, and to identify the key forces that encouraged/discouraged an integrated approach to management.

5.2.1 Are the interests of all key stakeholders represented in the decision-making process?

The stakeholders who are currently member organisations of the Condamine Alliance represent the “winners” in a struggle between a large number of natural resource management organisations seeking representation. As such, while representation on the Condamine Alliance does include a number of key community and local government organisational stakeholders, it is not necessarily representative of all the sectors (or interests) with a stake in natural resource management in the catchment. This lack of representation of some sectors has led to concerns from within the Condamine Alliance itself that important stakeholders (such as the industry sector) are not adequately represented (pers. comm., Participant X). While members of the Condamine Alliance (pers. comm., Participant T; Participant E; Participant X) have identified business and industry as key contributors to natural resource management in the region, at present they are not directly represented (see the structure of the Condamine Alliance, Table 4.3, section 4.4).

The structure of the Condamine Alliance Board has also been criticised by government stakeholders:

I have concerns that there are no government people on it [the Board of the Condamine Alliance] because I think that to work properly it has got to be a partnership between government and all the other players. (pers. comm., Participant F)

[T]he Condamine Alliance members ... I would not say we have a strong relationship with them because they are quite reluctant to include us in their meetings ... (pers. comm., Participant N)

Government stakeholders feel as though they have been forcefully marginalised from the Condamine Alliance's internal decision-making processes (pers. comm., Participant F; Participant N; Participant M; Participant Q). At a glance, it appears that this exclusion of government representatives is a direct result of the corporate structure of the Condamine Alliance (under corporate governance rules Board Meetings are not open to the public). However, the attitudes of the Condamine Alliance Board Members are the real stumbling block to the inclusion of government perspectives in internal decision-making processes. The constitution of the Condamine Alliance allows the Board to invite an individual or representative into a Board meeting as an observer. The Condamine Alliance is yet to invite a government representative to observe their Board Meetings.

This exclusion has not been for lack of desire on the part of government stakeholders to become involved. As articulated by one agency stakeholder: 'if I was personally setting up [the structure of the Condamine Alliance] I would have government representatives on it ... we can't be members, but we can be observers' (pers. comm., Participant F). The consequence of this exclusion has been that government agencies have only been able to offer advice on the development of plans and funding proposals through the formal accreditation phase of the Regional Managers Forum and Joint Steering Committee, rather than at the time when the plans are being developed. Such an approach hinders the development of integrated management plans.

Excluding government stakeholders from Condamine Alliance Board Meetings (and thus their internal decision-making processes) also hinders the development of informal relationships between individuals working within these organisations. The importance of informal networks in getting things done in the Condamine Catchment has been identified by a number of participants (pers.

comm., Participant D, Participant Q; Participant B). By not working to develop these relationships, the Condamine Alliance has denied itself access to information and experience from government agency staff that might prove valuable during the early stages of plan development.

5.2.2 Are clear criteria applied when making decisions? If so, how was it developed? Does any interest hold any more weight than others?

The development of the Condamine Alliance as a private company has established a rigor in the administrative and governance aspect of the organisation (pers. comm., Participant L). Generally speaking, this corporate structure provides a framework of strict governance rules concerning interaction with outside stakeholders and how finances must be handled. This aspect of the organisation has been embraced by State government stakeholders because of the accountability it provides for the spending of public money (pers. comm., Participant H). However, this structure does have negative aspects, such as reduced flexibility (see section 5.4) and the perception that the Condamine Alliance is a “closed” organisation (see section 5.4).

Members considered the listing of the Condamine Alliance as a private company a positive step, but hindsight has led three Board Members and one affiliated community stakeholder to view the structure as a constraint (pers. comm., Participant M; Participant L; Participant E; Participant B). While the corporate structure of the Condamine Alliance has provided an administrative framework for decision-making, this framework does not provide clear direction over how stakeholders should interact or how critical decisions, such as the prioritisation of funding needs, should be made (pers. comm., Participant L; Participant S; Participant Y; Participant M). A protocol or agreement over how stakeholders will act and how decisions will be arrived at is necessary to provide certainty and structure for the decision-making process. This type of agreement does not exist within the Condamine Alliance.

The uncertainty surrounding how decisions will be made within the Condamine Alliance has been brought on by a lack of clear rules that provide a basis for option evaluation and ultimately, decision-making. Similarly, both the Regional Managers Forum and the Joint Steering Committee (see section 4.3) have no identified criteria for evaluating plans or proposals emanating from the Condamine Alliance. A lack of a clear decision framework has contributed to

uncertainty over what the basis for decisions are (pers. comm., Participant M; Participant R). This uncertainty has raised concerns that there is no impartial base for evaluations, and that decisions are made based on the objectives of the individual stakeholders rather than what might be best for the wider catchment (pers. comm., Participant M). A decision framework diminishes the opportunity for stakeholders to pursue outcomes that benefit their own interests, and in this way could encourage greater confidence and trust between stakeholders necessary for the development of an integrated approach.

5.2.3 Is the decision-making process open, accessible and transparent?

Transparency can be construed in two ways, transparency over expenditure and transparency over decision-making processes. Transparency is an issue that needs to be considered for both the Condamine Alliance and government stakeholders involved in the implementation of the National Action Plan. For the Condamine Alliance, while the structure of the organisation has ensured that there is ample transparency in the way money is being spent (through the accounting requirements of the corporate governance structure); transparency over how decisions have been made is not as evident. The corporate structure of the Condamine Alliance has resulted in government stakeholders perceiving the organisation as being closed and overly secretive (pers. comm., Participant N; Participant D; Participant G; Participant Q). There is growing acceptance within the Condamine Alliance that this lack of transparency has damaged relations with other organisational stakeholders (pers. comm., Participant E; Participant M; Participant L).

Members of the Condamine Alliance have also expressed concern over how accountable Board Members are to other organisational stakeholders and to the wider community. It was acknowledged that these were important considerations for the Board, but ones that had not been adequately addressed (pers. comm., Participant A). There is evidence that this lack of transparency and accountability has damaged relations between the Condamine Alliance and other community-based stakeholder organisations in the Condamine Catchment. One specific example that was raised related to the way in which the Condamine Alliance handled funding for a community project.

In this example a community-run natural resource management project was approved through the National Action Plan assessment process. Funding for the

project had been distributed to the Condamine Alliance (as the Regional NRM Body for the region) for distribution to the community group (pers. comm., Participant R). However, those community members involved in the delivery of the project were not informed that funding had been approved, nor did they receive the funds allocated to them immediately. This raised concerns from the community group that the Condamine Alliance was sitting on the money for as long as it could in order to 'gain the interest' (pers. comm., Participant R). The result was scepticism and distrust towards the Condamine Alliance that the community stakeholder organisation would carry into future interactions.

Examples of a lack of transparency and accountability have also been evident from both the State and Commonwealth government stakeholders. The lack of a clear criteria by the Regional Mangers Forum and Joint Steering Committee for evaluating funding proposals and plans developed by the Condamine Alliance has raised concerns within the Regional NRM Body, and in other community-based natural resource management organisations, that the accreditation bodies were pursuing their own agenda by approving those aspects that concur with their own aims, and rejecting those that do not (pers. comm., Participant M; Participant R).

5.2.4 Is the decision-making process supported by clear, focused and realistic goals that are shared by all participants? Do these goals provide advantage for any particular stakeholder interest?

As identified by the policy description (see section 4.3), and reiterated by representatives of State agencies involved in its implementation, The aim of the National Action Plan is to develop a more holistic and strategic approach to natural resource management (pers. comm., Participant J; Participant O). In part, the achievement of this aim depends on the ability of the Regional NRM Body to develop strategic goals and actions designed to pursue them. As yet, the Condamine Alliance has not demonstrated the ability to develop these goals and actions.

One of the key impediments to achieving a holistic and strategic approach to natural resource management in the Condamine Catchment has been the reluctance of the Condamine Alliance to commit to the delivery of the Regional NRM Plan that they are developing. The structure of the Condamine Alliance is such that, under the articles of the company, they have had to identify a single focus as their core business. The Condamine Alliance Board of Directors has

identified the development of the Regional NRM Plan as their core business (pers. comm., Participant L). The consequence of this is that they are unwilling to concentrate on the implementation of the plan, leading to the perception from government stakeholders that 'they don't even know if they want a role in the implementation of the [Regional] NRM plan' (pers. comm., Participant G).

With the failure of the Condamine Alliance to commit to the delivery of the Regional NRM Plan, there has been a lack of clarity over how implementation will proceed (pers. comm., Participant A; Participant K; Participant S; Participant E). This lack of clarity has elicited concerns from members of the Condamine Alliance that a failure to clearly identify a plan for implementation will impede the commencement of on-ground works (pers. comm., Participant S; Participant E; Participant K; Participant P). This is a situation that has been brought about by a lack of strategic direction by the Condamine Alliance.

Members of the Condamine Alliance acknowledged this lack of strategic direction for the organisation and identified that it was brought about by a lack of understanding of the values, beliefs, and attitudes of other participants, and their reasons for involvement (pers. comm., Participant S; Participant P). They identified that this led to a subsequent lack of agreement over the organisation's vision for the future of natural resource management in the Condamine Catchment, and the role of the Condamine Alliance within it:

I think what is really lacking at the moment is a day where we don't actually just come in and do our normal Board stuff. We need a day just to sit around and talk about directions and stuff like that, which is something we have never done. ... [T]he fundamental thing we need at the moment is a good half day to just sit around on some comfortable chairs, relax ,and just sort of do some visioning and just say ... why are you involved in this Board? What is your vision? Who do you feel your stakeholders are? And, how do you want to implement the stuff? (pers. comm., Participant P)

This member of the Condamine Alliance is advocating for an opportunity to improve understanding about other participants and, through a process of mutual learning, develop a shared vision of the future. Engaging with other participants in this way may facilitate the development of a clearer strategic direction within the Condamine Alliance.

The development of a strategic direction for natural resource management in the catchment has also been inhibited by the lack of clarity in the definition of the roles and responsibilities of both the Condamine Alliance and government

stakeholders. This uncertainty was identified, both by members of the Condamine Alliance and State agency representatives, as affecting the development of a strategic direction (pers. comm., Participant K; Participant C; Participant D). Without clearly defined roles and responsibilities stakeholders were uncertain what contributions their organisation could make and what jurisdiction other organisations held. This uncertainty effectively fragmented decision-making and goal development responsibility. The result of this fragmentation was that stakeholders acted to pursue individual objectives, rather than collectively defined ones.

5.2.5 Is understanding and knowledge produced through mutual enquiry and learning, or is it imposed upon stakeholders?

Stakeholders charged with implementing the National Action Plan have demonstrated little commitment to the collective development of information (mutual learning). Within the State government there appears to be an attitude that the natural resource planning that they have conducted in the past will be directly incorporated into the Regional NRM Plan being developed by the Condamine Alliance (pers. comm., Participant O; Participant C):

The targets we [the Queensland Department of Natural Resources & Mines] have for water ...will be the key feature of that part of the [Regional] NRM Plan. So, the [Regional] NRM Plan won't have to ... visit that setting of targets for environmental flow objectives for example. They would have already been set through the [departmental] planning process for the Water Resource Planning Process. ... Clearly the statutory Water Resource Planning targets need to be a part of the non-statutory natural resource management planning targets. (pers. comm., Participant O).

A holistic approach to natural resource management under the National Action Plan certainly requires integration between the many natural resource planning processes. If, however, the aims, objectives, and targets of the statutory planning processes are simply incorporated in the Regional NRM Plans, as this agency stakeholder suggests, then the purpose of these plans is not to collectively develop a vision to address natural resource issues within the Condamine Catchment, but simply to identify ways in which community stakeholders can work towards achieving government defined objectives.

Under such an approach knowledge (in this case targets and objectives to be achieved) would not be produced through a process of argumentation and debate, but instead would be imposed upon the group. As well as providing an

opportunity for conflict (through resistance to this imposition), this would eliminate an opportunity for mutual learning that could bring about greater agreement and understanding over the issues to be addressed. An approach that does not encourage mutual learning also discourages participants from developing the feelings of ownership over the process that are created when stakeholders invest their time, knowledge, and skills to influence the shape of outcomes.

Similarly, the model that the Condamine Alliance have adopted to develop the Regional NRM Plan also does not encourage mutual learning. Under this model, development of the Regional NRM Plan is to be conducted by consultants under the direction of the Condamine Alliance. The Condamine Alliance therefore becomes the project manager of a number of different projects all contributing to the development of the Regional NRM Plans. Concerns have been raised that this model does not build the capacity of the members of the Condamine Alliance; it builds the capacity of the consultants (pers. comm., Participant W; Participant B). This approach also prevents members of the Condamine Alliance from being able to engage day-to-day with the relevant information, and limits the opportunities for mutual learning.

5.2.6 Do all stakeholders have equal access to all of the pertinent information?

Equal access to information is considered important to achieve equitable outcomes. Unfortunately, the attitude adopted by the State agencies towards the implementation of the National Action Plan has prevented the Condamine Alliance from having equal access to information. While individual representatives of the State agencies made it clear that were more than willing to share information and advice with the Condamine Alliance (pers. comm., participant Q; Participant I; Participant F), the business-like attitude adopted by the State agencies in general does not demonstrate a commitment to the assurance given by their representatives.

As part of the redefined role the State government has adopted in natural resource management (see section 5.3) state agencies have been instructed to view the delivery of natural resource management as no longer part of their “core business” (pers. comm., Participant I; Participant F; Participant O). Under this model of engagement State agencies will act more like consultants, conducting studies, research, or implementation activities for the Condamine

Alliance for a fee (pers. comm., Participant I; Participant F). While this appears as another cost shifting exercise by the State government it also demonstrates what future relations between Regional NRM Bodies and State government agencies may look like. The development of a business relationship does not facilitate the free flow of information between stakeholders, nor a collaborative approach.

5.2.7 Do decisions include the interests of wider society? Are opportunities provided for public participation in the decision-making process?

Despite clear directives from the State and Commonwealth, the Condamine Alliance has demonstrated a lack of commitment to public participation within the planning process to date. Stakeholder groups not directly involved in the process have expressed concern that they have been left out (pers. comm., Participant Y). Concerns were also raised that the general community have limited understanding of what is going on with the implementation of the National Action Plan because a lack of communication (pers. comm., Participant U). One member of the Condamine Alliance has expressed concerns that the planning process has suffered because of this lack of public participation, and could have been improved if the community was involved right from the beginning (pers. comm., Participant S).

The lack of commitment to public participation can be attributed to two causes: firstly, the timelines for the delivery of plans and proposals set by the Commonwealth government, and, secondly, the attitudes of the Condamine Alliance Board Members. Within the Condamine Alliance there existed a perception that the strict time frames of the National Action Plan did not provide ample opportunity for community consultation (pers. comm., Participant S; Participant K). Community consultation was further discouraged by the attitudes of some members of the Condamine Alliance:

I think there is a responsibility on your behalf, if you have an issue with the environment, that you make your opinion through your representative on the [Condamine] Alliance and stop sitting out there whinging and sulking. ... We are not going out there knocking on doors. ... If you don't consult, and you are not part of the solution, we are not doing it for you. (pers. comm., Participant T)

Embedded within this statement is the attitude that formal processes for public participation are not required and that it is up to individuals to make their voices

heard through the members of the Condamine Alliance. This proposed consultation structure (one where individuals are encouraged to raise issues with members of the Condamine Alliance) may be a good one for member organisations of the Condamine Alliance. However, it does not help non-participant organisations getting their viewpoint heard and does not allow the general public to engage in the planning process.

5.2.8 Are temporal (e.g. a timeline for enacting change) as well as spatial boundaries defined? How do these boundaries affect decision-making?

The temporal scale for decision-making has had an impact on the development of the Regional NRM Plan in the Condamine Catchment in two ways. Firstly, the timeline imposed by the Commonwealth government has pushed the Condamine Alliance to prepare plans in a short time period. Secondly, the time taken for both State and Commonwealth stakeholders to assess and accredit these plans has created uncertainty and delays for the Condamine Alliance. The short time-frames and strict deadlines set by the Commonwealth government for the development of plans and proposals have required the Condamine Alliance to produce plans before they are fully ready to do so (pers. comm., Participant S; Participant K). Consequences include the Condamine Alliance not having enough time to properly consult the wider community, and not being able to complete the planning to the degree and detail to which they would like (pers. comm., Participant S; Participant K).

The lack of a definite timeline or temporal scale for the assessment of proposals by the Joint Steering Committee and State and Commonwealth agencies have had further negative consequences for the Condamine Alliance (pers. comm., Participant M; Participant T).

We are expected to turn things around within a weeks notice. [If] you don't turn it around, you miss the deadline [and] you don't get the funding. And it will sit in Canberra [with the Commonwealth government] for eight months. Never mind the fact we have an organisation we have set up. How do we pay people? Pay cheques go out every two weeks and we are sitting here but we can't do anything because it took eight months to get the money to give us the where-with-all to get out there and do something. .. So it has been the untimeliness of the funding and their decision-making. They have such a cumbersome process. The red tape and just the difficulty of getting

anything through government is just impossible. (pers. comm., Participant M)

Delays emanate from the length of time some agencies take in reviewing proposals and providing comments. Delays at this stage of the accreditation process have caused frustration, both within the Condamine Alliance (pers. comm., Participant Y; Participant T), and between other State agency members of the Regional Managers Forum (pers. comm., Participant F). Establishing clear and workable temporal scales for decision making would be one action that could reduce the level of tension currently felt between stakeholders.

In terms of the spatial scales for decision-making, the focus of the National Action Plan on delivering natural resource management at the catchment scale is a significant move forward. Undertaking planning and management actions at the catchment scale has been facilitated by member organisations of the Condamine Alliance, such as EDRPAC and the Condamine Catchment Management Association, that have previously adopted the catchment as the preferred planning unit. These regional stakeholders bring with them to the planning process experience and a history of planning at the catchment scale. The stakeholders representing government agencies bring with them planning and management processes from a multitude of inconsistent spatial scales

One of the barriers that exist for the delivery of natural resource management at the catchment scale is the inconsistent planning boundaries adopted by State agencies. Different agencies, and, at times, different sections within the one agency, adopt various planning units. These include those that have little resemblance to geographic or natural boundaries, to those that are based on (albeit inconsistent) natural processes (e.g. vegetation bioregions and catchments). This inconsistency in spatial units for planning has meant that knowledge and jurisdiction is fragmented, resulting in a situation where government stakeholders with the responsibility to be involved in the planning process change, not only with the issues, but with the geographic location within the catchment.

For example, if the catchment straddles two vegetation bioregions, two separate vegetation management planning processes need to be integrated into the Regional NRM Plan, and two separate stakeholders represent the vegetation sector. As one community stakeholder identifies, while the National Action plan adopts a naturally defined region as the planning unit, many of the organisational stakeholders involved in implementing the policy do not operate

at this spatial scale (pers. comm., Participant R). This inconsistency has presented a barrier toward the integration of multiple planning processes.

5.2.9 How are decisions reached? Are any stakeholders marginalised from the decision-making process?

Natural resource management decision-making under the National Action Plan can be viewed from both the micro and macro scale. Decisions are made by the Condamine Alliance at the regional scale, and made (sometime remade) by government stakeholders at the state and national scale. Decision-making within the Condamine Alliance is not guided by clear rules or framework. This has resulted in confusion, with some members believing that decisions within the organisation must be arrived at through consensus (pers. comm., Participant T; Participant V), and other believing that only a majority is required (pers. comm., Participant T; Participant P).

Decisions are made through voting during Board Meetings. Those absent may vote by proxy. Failure to do this results in missing out on an opportunity to vote. Corporate governance rules ensure that everyone present has the opportunity to vote, but there are no rules (formal or informal) to ensure that all board members have equal opportunity to debate the issues and be heard. Failure to establish such rules has resulted in attempts by some members to dominate, and marginalise other perspectives (see section 6.3.2)

At the macro level, regional and community-based stakeholders are marginalised from state and national level decisions (such as the assessment of funding proposals or accreditation of Regional NRM Plans). Government stakeholders (both State and Commonwealth), through the Regional Managers Forum and Joint Steering Committee, hold absolute control over accreditation decisions. This control effectively denies the Condamine Alliance a role in the decision-making process, other than through the submission of their proposals.

In response, the Condamine Alliance has adopted a corporate structure that has enabled them to marginalise state and federal agency representatives from engaging in regional plan-making and decision-making at the regional scale under the National Action Plan. Both these actions demonstrate attempts by stakeholder organisations to retain control over the decision-making processes for which they are responsible.

5.3 An evaluation of the influence of participant characteristics

Individual participants affect the shape of stakeholder relations through the way they act, react, and interact. Actions taken by participants can facilitate or impede integrated management. As identified in Table 2.4 (section 2.6), the key determinants over how stakeholders act (or react) when engaged in a multi-stakeholder approach to natural resource management include the technical skills these stakeholders possess, and the attitudes they hold. Investigative questions (drawn from Table 2.4), when answered, provide indication whether the characteristics of individual stakeholders within the Condamine Catchment facilitate integrated management.

5.3.1 Do all stakeholders possess the skills, capacity or experience to contribute to resource policy development?

Discussion concerning the technical skills of members of the Condamine Alliance revolves around two main issues:

- (1) the technical knowledge to understand and manage ecological processes; and
- (2) The skills and professional experience necessary to guide the development of the Regional NRM Plan.

While the successful development and implementation of a regional NRM Plan requires technical skills, their presence or absence are difficult to measure. One way to overcome this difficulty is to examine the perceived level of technical skills possessed by the Condamine Alliance. By gaining an understanding of the perceptions of all key stakeholders (both internal and external to the Condamine Alliance) it is possible to identify a number of themes relating to the capacity of members of the Condamine Alliance to undertake the work.

Government stakeholders articulated two clear doubts concerning the capacity of the Condamine Alliance to manage this scale of project (the development of the Regional NRM Plan). Firstly, regarding the development of the plan itself, the view from those external stakeholders was that the members of the Condamine Alliance did not have the experience of developing a regional plan of this nature and did not have the skills or the capacity to do it (pers. comm., Participant D; Participant N; Participant F; Participant G; Participant C; Participant Q).

Secondly, specific doubts emerged concerning whether individual Board Members of the Condamine Alliance possessed the project management skills and contract management skills necessary to manage the delivery of the Regional NRM (pers. comm., Participant G). These concerns are especially pertinent considering the level of project and contract management required by the contracting-out model of plan delivery that the Condamine Alliance has opted for (pers. comm., Participant G).

Participants intimately involved with the Condamine Alliance also expressed concerns over the capacity of the Condamine Alliance to project manage the development of the Regional NRM Plan (pers. comm., Participant L; Participant B). Again respondents singled out individual Board Members, stating that these members did not fully understand their responsibilities, did not have the capacity to undertake the work (pers. comm., Participant X), and did not have the skills to warrant remaining on the Board of the Condamine Alliance (pers. comm., Participant E). Perhaps the most significant criticism was levelled at the local government representatives on the Condamine Alliance Board:

[T]he history of project management through EDROC has been less than desirable in my view. They tend to secure funds, hand over responsibility to somebody else, typically ... a consulting firm, and then move on to the next funding. [They tend to] get the funding, hand over the responsibility, and [they] don't take a serious role in owning the project and its outcomes.
(pers. comm., Participant B)

The Condamine Alliance Board contains four local government Mayors (representing EDRPAC), while the majority of members represent community organisations. As one community stakeholder pointed out, the structure of representation on the Board means that the level of capacity to undertake their prescribed role varies between Board Members, with the community-based stakeholders not having the experience or skills of the EDRPAC representatives (pers. comm., Participant P). Concerns were raised as to whether a Board made up of predominately community members who basically volunteer their time (although they are paid a nominal sitting fee for each meeting), have the capacity to manage what amounts to a large undertaking with major financial considerations (pers. comm., Participant Q).

This observation exposes what could be a major criticism of this model for implementing the National Action Plan. The Bilateral Agreement prescribes that Regional NRM Bodies (such as the Condamine Alliance) must draw a majority

of its members from the community. The difficulty of the task, coupled with the perceived lack of technical skills of these members, brings into question the capacity of Regional NRM Bodies to manage the development of the Regional NRM Plan. The task becomes all the more difficult when the regional stakeholders are not afforded guidance and encouragement from more experienced government stakeholders.

In principle, devolution of responsibility [to the community] is a wonderful idea. In reality, with people with the skill levels that are there in the community, you are asking them to do an incredible job from basically nothing. (pers. comm., Participant Q)

5.3.2 Are all stakeholders committed to work in collaboration with others?

Achieving a collaborative approach to natural resource management requires a commitment from each individual and organisational stakeholder to work collaboratively with others. What is evident from analysing interview data, observations from meetings and the structure of the plan accreditation process is that at the Commonwealth, State and regional level there is a demonstrated lack of commitment to establishing a collaborative stakeholder approach to management in the Condamine Catchment. Within the Condamine Alliance itself, rather than being engaged in a collaborative approach to planning, stakeholder interactions are more akin to power struggles for control over internal decision-making processes. This power struggle can be thought of as existing between two factions. On one side is the local government interests represented by EDRPAC, and on the other is the community interests represented by the community-based organisations. The source of this division is embodied within the statements made by three local government representatives:

We [local government] have a role in law which these bodies [other stakeholder groups represented on the Board of Directors] don't have. We have a role in law to be involved in planning. (pers. comm., Participant E)

I think local government is the animal that should be used, certainly in Queensland, for the management [of natural resources]. ... I think local government is the only entity that can balance the interests of all concerned. (pers. comm., Participant K)

Well, you have the statutory authorities there which are the local governments (the planning authorities), and that is a strength we have got.

... [T]hat became the strongest part of the Condamine Alliance, and will remain the strongest part, because that is the political clout, the monetary clout, the planning clout, the statutory clout. It is all there. (pers. comm., Participant T)

What is evident from these comments is that EDRPAC representatives on the Condamine Alliance believe they have the skills, experience and the mandate (under the *Integrated Planning Act 1997*) to control planning in their region. As such, local government representatives believe that they should control the decision-making processes of the Condamine Alliance (pers. comm., Participant K; Participant T; Participant E). External government stakeholders describe this attitude as the driving force behind an attempt by local government interests to control the agenda of the Condamine Alliance (pers. comm., Participant C; Participant N; Participant Q). This attitude provides a source of conflict as local government interests attempt to dominate the agenda of the Condamine Alliance.

At the State level, government agency attempts to control natural resource management within the Condamine Catchment can be perceived as a rear guard action to retain the control that it lost through the introduction of the National Action Plan. As described in section 4.3, the history of the National Action Plan is that it was a Commonwealth government initiative that devolved the responsibility for natural resource management from State government to the community through the formation of Regional NRM Bodies. In doing so, it also introduced the Commonwealth as a stakeholder in natural resource management (as an overseer of the process to ensure its investment was properly spent).

While the politicians representing the Queensland government agreed to this change in institutional arrangements, bureaucrats within the State agencies and departments seem unwilling to relinquish control over natural resource management to these new stakeholders. In response, State government departments have formed a 'business' relationship with the Condamine Alliance to develop and implement the Regional NRM Plan (pers. comm., Participant I; Participant J). Under this approach State agencies hold the attitude that they will supply the technical information to be included into the planning process (pers. comm. Participant I; Participant O), and see themselves as coaches training the Condamine Alliance to undertake natural resource management (pers. comm., Participant C). This attitude may be a response by State agencies that fulfils the

political requirements of the new institutional arrangements without devolving all of their previously held power.

Underpinning this attitude seems to be the perception emanating from the State agencies that they will remain the policy-maker for natural resource management, and the Condamine Alliance will be responsible for coordinating the implementation of these policies (pers. comm., Participant J). The State agency representatives appear unwilling to accept that community-based stakeholders can develop the capacity to play a more involved role in policy formulation. Given that the Queensland Department of Natural Resources and Mines traditionally held the most power to control natural resource management, it is not surprising that the stakeholders interviewed singled out this department holding this attitude the strongest. The Department of Natural Resources and Mines was described as an organisation that was unwilling to give up the power it once held over natural resource management in the Condamine Catchment, and as an organisation unwilling and unable to work with other stakeholders (including other government departments) in a collaborative way (pers. comm., Participant D).

The State and Commonwealth governments have also demonstrated a lack of commitment to developing collaborative relations with other organisational stakeholders. An unwillingness to implement a collaborative approach is demonstrated by the assessment and accreditation structures that have been put in place. Government stakeholders identify that these structures have been put in place to ensure accountability for public money investment. Whatever the motivations, the Commonwealth, State, and regional level stakeholders have acted to gain or maintain control over the planning and decision-making process for natural resource management in the catchment. Such action has come at the expense of a focus on developing the collaborative stakeholder relations necessary to develop an integrated approach to management in the Condamine Catchment.

5.3.3 Do all stakeholders support and facilitate the collaborative decision-making process?

By examining the responses of participants in the interviews and by observing the actions of stakeholders involved in the development of the Regional NRM Plan, a number of examples of a lack of commitment to facilitate and support the planning and decision-making processes of the National Action Plan were

identified. Perhaps the most fundamental example of this lack of commitment is the perception held by some stakeholders, including members of the Condamine Alliance, that the principle goal of the National Action Plan (to reduce and prevent outbreaks of salinity) is not relevant to the Condamine Catchment (pers. comm., Participant U; Participant P). This attitude is embodied by the comments made by one member of the Condamine Alliance:

I think Queensland has sort of got on the bandwagon because that is the bandwagon to get on. I mean, I am not convinced that salinity is a major issue. Like in our shire, there are three small outbreaks that cover probably half an acre each that people through land care put trees and stuff on and have managed those areas separately. (pers. comm., Participant P)

It is difficult to see stakeholders fully supporting the planning processes and its outcomes when they do not agree with the premise of the natural resource management plan they hold the responsibility of developing.

Within the Condamine Alliance there are also growing concerns over the nature of the planning process and the perceived delay in implementing on-ground works (pers. comm., Participant K; Participant E; Participant S; Participant P). This attitude is strongest within the EDRPAC and Landcare representatives and demonstrates a lack of confidence that these sectors have with the detailed and strategic nature of the planning required under the National Action Plan. This attitude is exemplified by the comments made by members of the Condamine Alliance:

I would suggest to you that there is a real lack of understanding of the role of local government ... I mean the Mayors are can do people. They like to see things happen, and happen quickly. [They] say right that is a good idea, somebody do it. We are up against people who don't quite think that way. They are a lot more inclined to think that there is a highly scientific, complex structure that ought to be put in place to do it. (pers. comm., Participant E)

The other frustrating thing I think at the moment ... we have just spent the last eighteen months to two years and all we have talked about so far is governance. ... [W]e have spent most meetings talking about that sort of stuff and not getting onto any of the on-ground stuff at all. (pers. comm., Participant S)

[W]ell, it is fine [to develop] ... an overall plan, an integrated plan. That is part of the process. However, I am extremely disappointed that it appears that process is not as simple as I would have expected it to have been, and [has led to] the possibility that the end result is a lack of on-ground works. ...

[T]he potential for on-ground works is rapidly diminishing as I see it. (pers. comm., Participant K)

These comments demonstrate the focus the local government and Landcare sectors have on delivering immediate and visible solutions to natural resource issues. It is an attitude not consistent with the detailed planning processes supported by other stakeholders on the Condamine Alliance, the State and Commonwealth governments, and as prescribed under the Bilateral Agreement. These divergent attitudes towards the way in which planning should be undertaken has resulted in conflict between member organisations of the Condamine Alliance (pers. comm., Participant S).

Conflict has also developed within the Condamine Alliance over a lack of commitment demonstrated by some members towards collaborative decision-making. Concerns have arisen, both from within the Condamine Alliance and from government observers, that a number of Condamine Alliance Board Members have been representing their own private sectoral interests rather than working collaboratively to address the issues from the perspective of what is best for the region as a whole (pers. comm., Participant E; Participant N). Without commitment to collaboration decision-making processes will become characterised by conflict as stakeholders fight for outcomes that benefit the sector that they represent. This conflict has already become apparent within the Condamine Alliance as battles for control over the planning and decision-making process have resulted in the resignation of the original CEO, and a lack of attendance from one of the Board Members with whom the CEO was aligned (pers. comm., Participant M; Participant E; Participant H).

Members of the Condamine Alliance and State agency representatives have also identified a number of State agencies as not working in a collaborative manner. Part of the reason for this is the corporate structure of the Condamine Alliance, which hinders open communication and collaboration (see section 5.4). Another contributing factor is the attitude of members of State agencies who were unwilling to acknowledge the Condamine Alliance as an equal partner in natural resource management (pers. comm., Participant I; Participant C).

One of the difficulties has been the unwillingness at times of [the] State and Commonwealth government to accept that the community can actually do it. I think it is sort of a big social experiment. I think they were really waiting for it to fail or not going out of their way to make sure that it didn't fail, put it that way. (pers. comm., Participant M)

A lack of support and real effort to establish a collaborative approach has resulted in an attitude emanating from within the Condamine Alliance that Commonwealth and State departments have abdicated responsibility for natural resource management to the Regional NRM Body:

And I say literally when the Feds pass the buck, they do pass the bucks to the State. And the State is supposed to match and pass the bucks to some poor bunny like me that is sitting as a director on a company [the Condamine Alliance]. [A company] that ends up being totally responsible for the federal, State and local government way of doing business around salinity. (pers. comm., Participant Y)

By not working with the Condamine Alliance, State and Commonwealth stakeholders have contributed to the development of relations characterised by conflict and uncertainty. Such relations do not reflect the aim of creating a collaborative approach to natural resource management outlined by the rhetoric of the National Action Plan (see section 4.3).

5.3.4 Do stakeholders communicate/interact with each other in an open and honest manner? Do the stakeholders demonstrate respect and trust for each other?

The institutional arrangements, decision-making processes, and the characteristics of the stakeholders themselves shape relations between natural resource stakeholders in the Condamine Catchment. An analysis of these relation-shaping forces has identified a number of barriers to the establishment of an integrated approach to management. Through the examination of stakeholder relations within the Condamine Catchment it is possible to identify the dominant forces shaping relations, and what effect these forces had on decision-making processes.

Open and honest communication between stakeholders is necessary to build trust and respect, and develop the relationships necessary to work collaboratively. Communication barriers were evident at the Commonwealth, State, and regional level. At the Commonwealth level, the government was singled out by members of the Condamine Alliance as not providing clear responses to questions that were asked of them, and running an accreditation process that was not open or accommodating (pers. comm., Participant M; Participant Z). Similar barriers to open communication were reported by members of the Condamine Alliance concerning the State agencies. It was identified that the roles and responsibilities of the State agencies were never

made clear, and responses to direct questions were often unclear or contradictory (pers. comm., Participant K; Participant E)

The role and position adopted by the Condamine Alliance was also identified as a barrier to open communication:

[T]he Condamine Alliance ... is manifesting [itself] as a difficult organisation to communicate with and it is manifesting [itself] as something that is very much regulated, controlled and isolating itself. (pers. comm., Participant Q)

Two barriers to communication were identified, the structure of the organisation and the personalities of some of the Board Members. The development of the Condamine Alliance as a company (see section 4.4.3) means that the organisation is bound by a number of rules. Two of these rules are that Board Meetings are closed to the public (a person must be invited in to a meeting by the Board to attend), and that business discussed by Members of the Board are not to be disclosed to the public (meaning that meeting minutes are not made public and Directors are not allowed to discuss issues other than with other Members of the Board). This structure has had two results. The first is that it has prevented open communication with stakeholders outside of the Condamine Alliance, and the second is that the Condamine Alliance has been perceived as a very secret and closed organisation (pers. comm., Participant Q; Participant F; Participant G; Participant N; Participant B).

Closed meetings generate a perception of secrecy, which is exacerbated by the personalities of certain members of the Condamine Alliance who have been identified by State agency stakeholders as impeding communication (pers. comm., Participant F), and of filtering and selectively disseminating information before it reaches the entire Board of Directors as a means controlling decision-making (pers. comm., Participant G). These perceptions and criticisms are illustrative of local parochialism and of local-State tensions. They represent impediments to open communication and are not conducive to the development of respect and trust amongst stakeholders.

Debate, argumentation and negotiation are integral components of collaborative decision-making processes. The nature of collaborative decision-making processes necessitates trusting and respectful relations, which are absent in natural resource management under the National Action Plan in the Condamine Catchment. By examining relations within the Condamine Catchment it is possible to identify how these relations have facilitated and/or impeded the

development of an integrated approach to natural resource management (see section 5.5).

Stakeholder Relationships within the Condamine Alliance

Relations within the Condamine Alliance (and between the Condamine Alliance and other organisations) have been largely influenced by the way the Regional NRM Body was formed, and the personalities of those that drove its development. The Condamine Alliance was formed in response to the introduction of the National Action Plan to develop the Regional NRM Plan for the Condamine Catchment, but also to administer and distribute the funds for the development and implementation of the plan. It is this role that has led stakeholders, both from within the Condamine Alliance and from government (pers. comm., Participant Q; Participant Z), to question the motivations of some of the stakeholders involved:

[There are] a few groups in there [the Condamine Alliance] that are participants because they are keen to see an outcome, and there are groups in there that are participants because they see an outcome which benefits them. (pers. comm., Participant Q)

Attempts by certain interests to use membership in the Condamine Alliance to pursue a particular agenda have strained relations between some stakeholder organisations. In particular, stakeholders, both from within the Condamine Alliance and government, have expressed concerns over the reasons for local government's recent interest in natural resource management (pers. comm., Participant Z; Participant N; Participant C; Participant M).

Some of these Mayors are very powerful people, and they have the ear of the State government. You can argue that Toowoomba, because they have a lot of problems with their water treatment plant, they have got to spend a huge amount of money to bring it up to standard. If they can source their money from somewhere else, well they would be pretty happy. [They would get the money] without it being a burden on their rate payers. (pers. comm., Participant Z)

Local government in the Condamine is well organised (through organisations such as EDROC and EDRPAC), well funded, and politically connected (pers. comm., Participant Z; Participant W). The concern is that local government will use this advantage that they have over less well resourced community groups to dominate the agenda of the Condamine Alliance and pursue their own goals.

The personalities of individuals, both from within and external to the Condamine Alliance, have also contributed to fears over hidden agendas and stakeholder conflict (pers. comm., Participant W; Participant E; Participant D; Participant M). Personalities have damaged stakeholder relations in a number of ways, including inciting open conflict because some members of the Condamine Alliance have publicly demonstrated a lack of respect for other stakeholder groups (pers. comm., Participant B), through excessive secrecy brought on by a lack of trust (pers. comm., Participant G), and through personal conflicts between individuals who represented different stakeholder organisations (pers. comm., Participant E). Concerns have emerged within the Condamine Alliance that this conflict has affected procedural aspects of the collaborative approach:

We have one of the recognised biggest salt contributors to the basin in Toowoomba at 13,000 tonne of salt a year. That is an issue that has to be addressed but, [the] Condamine Alliance is not addressing that, because of personality clashes we haven't even heard about it. (pers. comm., Participant E)

Another consequence of increasing local government in natural resource management has been a rift between local government interests and community-based stakeholders within the Condamine Alliance. Local government involvement in implementing natural resource management has come at the expense of a decreasing role for community-based stakeholders. Natural resource management in the Condamine Catchment has traditionally been undertaken by community groups such as Landcare and the Condamine Catchment Management Organisation. Increasing involvement from the local government decreases the responsibilities and funding of these traditional stakeholders. This has generated tension and suspicion from within these community organisations concerning the motivations of local government's new found desire to become involved in the implementation of natural resource management (pers. comm., Participant R; Participant Z; Participant W).

Government stakeholders have identified the potential for community groups to become 'disenfranchised' if local government interests take over community-based stakeholders traditional role (pers. comm., Participant O). This is seen as a major concern, because it is through these traditional natural resource management stakeholders that it is envisaged that implementation of the Regional NRM Plan will occur (pers. comm., Participant E; Participant B; Participant I).

Landcare – Condamine Alliance relationship

The relationship that the Landcare sector has with the other stakeholder organisations on the Condamine Alliance is an important one. Landcare has experience in implementing on-ground works, represents the farming sector of the community and is viewed as the stakeholder organisation most appropriate for implementing the on-ground works component of the Regional NRM Plan (pers. comm., Participant E; Participant B; Participant Z; Participant P; Participant C). The opportunities for the relationship to develop between Landcare and other stakeholder organisations is recognised as being constrained for three reasons, including: the involvement of local government, the way in which the Condamine Alliance was developed, and the corporate structure adopted (pers. comm., Participant J; Participant T; Participant E; Participant B; Participant W).

There has been a long history of antagonism between Landcare and EDROC that has resulted from 'very strong personalities in the EDROC camp who basically rubbished the Landcare movement at every opportunity' (pers. comm., Participant B). This attitude is fuelled by the perception held by some EDROC members that Landcare has failed to make real improvements to the environment and therefore are not worthy of future investment (pers. comm., Participant B). This negative attitude towards Landcare was demonstrated in the initial design of the Condamine Alliance structure (promoted by EDROC), which marginalised the Landcare sector and provided them limited representation (pers. comm., Participant B). The Landcare sector threatened to withdraw from the process and, after a long period of negotiation, eventually agreed to become a member of the Condamine Alliance (pers. comm., Participant B).

While Landcare did become an organisational member of the Condamine Alliance (with three representatives on the Board), the way in which EDROC attempted to marginalise them has soured the relationship between these organisations. This relationship has been further strained by the adoption of a corporate structure by the Condamine Alliance. This structure is contradictory to the community ethos of Landcare, and has generated feelings of scepticism of distrust from this sector (pers. comm., Participant G; Participant P). As a result of this strained relationship, concerns have been raised as to whether these two stakeholder organisations can work together to implement the on-ground component of the Regional NRM Plan (pers. comm., Participant B; Participant I; Participant E).

Condamine Catchment Management Association/Condamine Alliance Relationship

The Condamine Catchment Management Association was one of the initial proponents of the Condamine Alliance, and is represented by four members on the Condamine Alliance. The independent chair of the Condamine Alliance is also an ex-member of the Condamine Catchment Management Association. The Condamine Catchment Management Association/Condamine Alliance relationship has been characterised as a strong one (pers. comm., Participant M; Participant V; Participant W; Participant U).

Despite this close relationship, the development of the Condamine Alliance has had a considerable impact on the Condamine Catchment Management Association. Three main impacts can be identified. Firstly, conflict has been generated within the catchment management association during deliberations over whether or not to support the Condamine Alliance. Secondly, there is now a lack of clarity over the future role of the association. Finally, the structure of the Condamine Alliance creates a potential loss of independence for the catchment management association.

Prior to the introduction of the National Action Plan, the Condamine Catchment Management Association was an independent Integrated Catchment Management group that received its operating funding from the Queensland Murray-Darling Committee. When the time came to develop a Regional NRM Body under the National Action Plan, the leadership of the Condamine Catchment Management Association pushed for a split with the Queensland Murray-Darling Committee in order to form an alliance with local government interests (represented by EDROC). This alliance represented an attempt to increase their control over the delivery of funds within the Condamine Catchment (see section 4.4.3).

The decision to form an alliance with local government interests resulted in a division within the catchment management association between those that supported the existing arrangements and those that preferred to split from the Queensland Murray-Darling Committee to form the Condamine Alliance (pers. comm., Participant U; Participant I). While this issue was resolved with full support given to the development of the Condamine Alliance, there were still reservations about the change and questions asked concerning why the leaders of the Condamine Catchment Management Association pushed for this change

(pers. comm., Participant U). One member of the catchment management association expressed concern that the debate surrounding the development of the Condamine Alliance may have damaged relations between members of the catchment management association (pers. comm., Participant U).

Worry over the long-term impact on the Condamine Catchment Management Association has been exacerbated as the Condamine Alliance has developed. Two full-time coordinators of the Condamine Catchment Management Association have resigned in order to take up employment with the Condamine Alliance as this organisation has grown. In effect, the traditional role of the Condamine Catchment Management Association (one of developing and implementing catchment wide natural resource management) has shifted to the Condamine Alliance. There is now growing uncertainty over the future role of the catchment management association (pers. comm., Participant U; Participant W; Participant C).

Questions surrounding the predicted future role of the Condamine Catchment Management Association elicited varied responses from interview participants. Predictions included that: the catchment management association no longer had a role to play as the Condamine Alliance had now taken over (pers. comm., Participant C; Participant U; Participant W), the association would become the community consultation arm of the Condamine Alliance (pers. comm., Participant V; Participant Z), and that it would become a political lobby group for the Condamine Alliance (pers. comm., Participant M).

The uncertainty over the future of the Condamine Catchment Management Association has been further compounded as a result of the changing funding arrangements necessitated by the development of the Condamine Alliance. Funding for the Condamine Catchment Management Association no longer comes from the Queensland Murray-Darling Committee; it now comes from the Condamine Alliance. With the attitude emanating from the Condamine Alliance that the catchment management association has become an arm of the Regional NRM Body (pers. comm., Participant M; Participant V), there is a possibility that the catchment management association may not maintain the independence that it enjoyed under the Queensland Murray-Darling Committee.

Condamine Alliance – EDROC relationship

Despite the key role EDROC has played in the development of the Condamine Alliance the relationship between these two organisations has been deteriorating

to the point where it has been described by one EDRPAC representative on the Condamine Alliance as '[m]ore than strained' (pers. comm., Participant S). The conflict between these organisations stems from EDROC's attempt to control the agenda of the Condamine Alliance, as confirmed by one EDRPAC representative on the Condamine Alliance:

Respondent: EDROCS original vision of how it [the Condamine Alliance] was going to go got, quite rightly, changed. And in the process of changing it there the personalities became involved in it, and the relationship is extremely changed. So much so, that I think we only had one meeting of the EDRPAC in 18 months and I think I will be going to my sixth one in three months next week. We certainly got some action that way but it is not the type of action we want.

Interviewer: What type of action are they looking at?

Respondent: Probably ways of trying to keep an influence over the Condamine Alliance ... there is a concern that the other members of the Condamine Alliance are going to override the local government interests. ... But there seems to be a perception at the EDROC level that if local government isn't controlling it [the Condamine Alliance] then it can't be done right and it is not going to be done right. (pers. comm., Participant S)

Conflict has emerged within the Condamine Alliance as representatives of other member organisations have resisted these efforts by local government to control the agenda:

[EDROC has caused] a lot on angst within this organisation because they have a very heavy agenda, which is one of the reasons why they pushed very hard for Condamine Alliance to be established ... [for the purpose of] getting money to fund some of their specific objectives. And they have been thwarted to some degree in doing that ... and [they] haven't been a very happy camper in that regard. (pers. comm., Participant M)

Local government representatives and those representing community interests on the Condamine Alliance have diametrically opposed views about the role of local government. Local government representatives view this as a lack of respect and understanding of the importance of this stakeholder group (pers. comm., Participant E; Participant K; Participant T). Those representing community interests, however, see local government as trying to circumvent due process in an attempt to influence the agenda of the Condamine Alliance to transfer local government responsibilities to the regional organisation (pers. comm., Participant Z; Participant M; Participant P).

The reasons for this dispute were consistently identified as pertaining to the personalities of some of the individuals involved, and their unwillingness to compromise on the vision that they held for the development and future direction of the Condamine Alliance (pers. comm., Participant E; Participant M; Participant B; Participant S; Participant D). Unless these stakeholder groups can reach some common ground and agree on the roles of the Condamine Alliance this conflict will remain unresolved and will hinder any future progress of the Condamine Alliance.

Relations between the Condamine Alliance and government

The relationship between the Condamine Alliance and government (both State and Commonwealth) can be characterised as one where both parties accept that the other has a role to play in natural resource management in the Condamine, they just can't agree on the nature and extent of that role. This disagreement is a major barrier to the establishment of a collaborative partnership. To identify the reasons behind this disagreement it is necessary to investigate the views and attitudes of both the Condamine Alliance and government stakeholders.

The Condamine Alliance views the National Action Plan as conferring a mandate to them, as the designated Regional NRM Body, to undertake natural resource management in the manner that they see fit without the interference of government (pers. comm., Participant A; Participant M; Participant G; Participant Y). This attitude, and the problems it has caused, is embodied in the comments made by individuals involved in the Condamine Alliance:

[T]he ground rules, particularly for the National Action Plan, was that this wasn't for the State agencies to be involved. (pers. comm., Participant A).

[T]he National Action Plan has taken that top-down power which was invested in the [government] agencies and turned that around and moved that power base, well not that you want to call it a power base, but the decision-making base has come back to the community. Now the agencies have had a lot of trouble dealing with that. They see it as usurping their power base. (pers. comm., Participant M)

The perception that the Condamine Alliance is 'usurping their power base' (pers. comm., Participant M) has caused the State agencies (who traditionally held control over natural resource management) to become concerned over the degree to which they will be involved in the planning being undertaken by the

Condamine Alliance (pers. comm., Participant G; Participant F; Participant I). At this point it is appropriate to revisit (see section 4.2 for detailed discussion).

The National Action Plan decreases the role and responsibilities of State agencies and invests them with inexperienced community-based organisations. The predictable response has been that these government agencies have been unwilling to devolve their power to the Condamine Alliance (pers. comm., Participant A; Participant M). Resistance on the State agencies part to relinquish control over natural resource management has served to exacerbate the feelings from within the Condamine Alliance that these agencies are infringing on the responsibilities conferred to them by the National Action Plan:

I think what the State agencies have done, they do have a bit of a gate keeper role and I think they have been a little bit too keen to hang onto it, even though there has been some clear direction that they should take a back seat role. (pers. comm., Participant A)

Specifically, these disagreements have damaged relations between the Condamine Alliance and the State's Regional Managers Forum, and with the Commonwealth led Joint Steering Committee (pers. comm., Participant G; Participant L; Participant N). More broadly, poor relations with government agencies have hindered the development of a collaborative approach to natural resource management between these organisations. These reactions can be linked to uncertainty over the roles and responsibilities conferred under the National Action Plan, and opposition to the new power arrangements that stakeholder organisations believe that these new roles confer.

The relationship between the Condamine Alliance and government agencies also appears to be affected by what can be described as a lack of openness or perceived secrecy. From the State and Commonwealth agencies perspective this has been a consequence of the corporate structure of the Condamine Alliance. This structure includes having closed Board meetings, which have been used as an excuse to prevent the inclusion of government in internal decision-making processes. This exclusion has led one government representative to state that:

I would not say we have a strong relationship with them [the Condamine Alliance] because they are quite reluctant to include us in their meetings. We are paying for them though. (pers. comm. Participant N)

This statement reflects both a resistance to the structure of the Condamine Alliance, and a perception that the Condamine Alliance is “biting the hand that feeds them”. From the Condamine Alliance’s perspective Board Members have concerns over the uncertainty behind the motivations of both the Commonwealth and State government that underpin the National Action Plan. While not sure of the specific agendas of government, they worry that ‘they have some fairly big agendas, and some of these are very politically driven’ (pers. comm., Participant M). This uncertainty has encouraged the Condamine Alliance to be sceptical about entering into a collaborative approach with government stakeholders.

State – Commonwealth relationship

As discussed in Section 5.3, relations between the Commonwealth and State governments have been soured by efforts by the State to “shift costs”, and the suspicion expressed over the motivations for the Commonwealth to become involved in natural resource management. Rather than to readdress these issues, this section identifies another, more fundamental, source of conflict. Conflict between the State and Commonwealth has been exacerbated by the different political parties currently in power at each level of government. The Commonwealth parliament is dominated by a Liberal-National party coalition, and the Queensland parliament, by a Labor government. This has an effect on the implementation of the National Action Plan when each party tries to play party politics with the natural resource agenda in an attempt to gain political advantage, as evidenced in the following dialogues.

Initially, the release of the National Action Plan was used by the (then) federal Coalition Minister for the Environment to draw attention to a perceived inaction of States to address natural resource issues:

Tomorrow we look to all the States, but particularly those Labor States of the east coast that are dragging their feet on these issues, to come to the table and get serious about these issues. We want them to sign up to the strategy tomorrow and commit \$600 million, and only then will we get a sign whether they are finally going to become serious about these major natural resource issues. (Hill, 2000: 18967)

The response by the Queensland government came when the Commonwealth delayed in signing the Bilateral Agreement with the State. The Queensland Minister for the Department of Natural Resource & Mines levelled this criticism at the Commonwealth during State parliament question time:

I am concerned that the federal government continues to stall on signing the National Action Plan on Salinity and Water Quality in terms of the bilateral agreement with Queensland. ... in January this year Queensland became the first State in Australia to sign the intergovernmental agreement with the Commonwealth ... That is why today I think that it is appropriate to express disappointment and frustration at the lack of action by the Commonwealth in implementing the national action plan in Queensland. Nine months after Premier Beattie signed up to the National Action Plan, Queensland is still waiting for the Commonwealth to sign the bilateral agreement that is necessary for us to start salinity projects in Queensland. (Robertson, 2001a: 2901)

The Queensland government was still waiting in December, which gave the Minister another excuse to criticise the Commonwealth (Robertson, 2001b: 4606). Further grounds for criticism were found by the Premier of Queensland, Peter Beattie, after the Commonwealth withdrew part of the funding for the National Action Plan:

Salinity is one of the biggest environmental challenges facing Australia. That is why I was disappointed to hear that, in the federal budget, \$25 million has been cut from the funding for the salinity national action plan in 2003-2003. In reducing the plan's original budget, the Howard government is betraying the Australian environment and the Australian people. (Beattie, 2003: 1947)

While not endemic to natural resource issues, or even to Australian politics, this interchange played out through parliament question time does provide some indication of State/Commonwealth tensions over the National Action Plan. One day the Queensland government is lambasting the Commonwealth for delaying in signing the Bilateral Agreement, and three months later they are releasing a joint press release indicating a strong commitment to a partnership approach to delivering natural resource management (see Kemp, 2003). It is on this political basis that their respective bureaucracies have been tasked with developing a collaborative approach to natural resource management.

Despite the gloomy picture painted by an analysis of the relations between key stakeholders in the Condamine Catchment, there is certainly hope for the future. Participants of the research interviews consistently stated that relations between the Condamine Alliance and external stakeholder organisations (such as government agencies, Regional Managers Forum, and the Queensland Murray-Darling Committee) now were much better than they were immediately following the introduction of the National Action Plan (pers. comm., Participant J;

Participant B; Participant M; Participant G). Changing relations provide hope for future collaboration.

The reasons for the improvement in stakeholder relations have been identified by participants as resulting from a push from key individuals within the Condamine Alliance to develop more open attitudes towards the sharing of information, and opening the channels of communication to external stakeholder organisations (pers. comm., Participant B; Participant M; Participant W). This openness has resulted in the development of a degree of trust between stakeholder organisations and an acceptance of the arrangements that govern natural resource management in the Condamine Catchment. However, the internal relations of the Condamine Alliance are another matter. These relations have always been troubled and the ongoing fight for dominance between member organisations means they continue to be so.

5.4 Natural resource management decision-making within the Condamine Catchment under the National Action Plan.

Natural resource management within the Condamine Catchment under the National Action Plan was characterised by conflict and competition. Analysis of practice demonstrated that many indicators of an integrated approach to management were not present within the case study. Decision-making processes were not clearly defined or supported by focused goals and objectives, information was not shared and there was a lack of support for the development of an integrated approach to management. Relationships between participant stakeholders were strained and resulted in an inability to work toward natural resource management objectives.

Analysis of natural resource management decision-making within the Condamine Catchment within this chapter revealed two key barriers to the development of an integrated approach to management.

1. A lack of clarity over stakeholder roles and responsibilities; and
2. Actions by both organisational and individual stakeholders to gain control over natural resource management decision-making.

A lack of clarity over stakeholder roles and responsibilities is reflective of the design of the National Action Plan as a natural resource management policy (see Chapter Four). While the broad procedural reforms are achieved through the introduction of the policy, detailed discussion of how natural resource

management actions are to be achieved are absent. This absence has created uncertainty that a number of stakeholders have attempted to exploit in order to influence natural resource management decision-making to pursue individual or organisational objectives.

Organisational stakeholders were unwilling to share power as each sought to pursue divergent goals. In this context agreement and collective action became impossible, and stakeholders began to compete for control over the decision-making process as a way to advance their own agenda. This scenario was apparent both at the regional, state and national level.

At the state and national level government stakeholders acted to pursue procedural reforms to the way natural resource management is undertaken, rather than to achieve an integrated approach to management. Both government stakeholders and the Condamine Alliance sought to capitalise on the new institutional arrangements to pursue their own objectives.

At the regional level, competition for control over decision-making processes was exacerbated by the personalities and actions of certain individual stakeholders. Stakeholder interactions were characterised by an unwillingness to share information, inability to separate personal values from catchment values, a lack of respect and trust for other stakeholders and an unwillingness to compromise individual agendas for collective gains. These actions resulted in personality clashes and a decision-making environment characterised by conflict rather than collaboration.

5.5 Conclusion

In the implementation of the National Action Plan in the Condamine Catchment IREM objectives did not play a significant role in decision-making. The rhetoric of the National Action Plan promoted the substantive elements of an integrated approach to natural resource management, but both the procedural arrangements and stakeholder actions did not advance these objectives. Instead, stakeholder relations in the Condamine Catchment were characterised by conflict as stakeholders fought to gain control over decision-making processes.

Evaluation of the institutional arrangements, decision-making processes and stakeholder characteristics revealed that a lack of clarity over stakeholder roles and responsibilities and desire to pursue individual goals, rather than collectively

defined ones, represented the most significant influences shaping stakeholder relations. The pursuit of individual goals was evident within all elements of a regional approach to natural resource management. Institutional arrangements were designed by the Commonwealth and State governments to pursue procedural reforms. Decision-making processes were characterised by a marginalisation of key stakeholders. Stakeholders acted to gain dominance over others in order to gain control over the decision-making process. Ill defined stakeholder roles and responsibilities exacerbated these actions, as stakeholders sought to exploit uncertainties to extend their level of control over natural resource management. Chapter Six draws together these findings to answer the research questions first posed in Chapter One.

Chapter Six

Discussion of Findings

The Condamine Catchment, IREM and communicative planning theory

6.1 Introduction

The idea that communicative planning theory can assist in the implementation of IREM presents two contestable assertions. Firstly, that collaborative approaches to management represent the most appropriate way to achieve IREM. Secondly, that communicative planning theory represents the most appropriate way to achieve this collaborative approach. As discussed in Chapter Two (see section 2.4.3) critics and proponents of communicative planning theory alike are now working to reign in the expectations that have grown around the applicability of this approach to planning and decision-making. Authors in the planning (see Forrester, 1999) and natural resource management literature (see Hooper *et al.*, 1999) argue that collaborative approaches represent only one possible way to pursue integrated outcomes. While collaborative approaches may be the most appropriate in some situations, they may be inappropriate in others.

When collaborative approaches have been identified as the most appropriate (e.g. the Commonwealth government decided a collaborative approach was the best way to deliver the National Action Plan) it is necessary to have procedural theory to guide implementation. This thesis investigated a collaborative approach to natural resource management in the Condamine Catchment to evaluate two things: (1) whether this practical application of collaborative management pursued IREM objectives, and (2) whether communicative planning theory can be applied to advance integrated management within this context. Drawing on the analysis conducted in Chapters Four and Five this chapter addresses these two objectives, presenting and discussing the main findings of the research.

6.2 Lessons from the Condamine Catchment

The analysis of practice within the Condamine Catchment has revealed a number of findings that highlight the opportunities and limitations to achieving an integrated approach to natural resource management through collaborative arrangements.

Finding 1: Natural resource management decisions under the National Action Plan were shaped by three key influences

The Condamine Catchment case study revealed an interesting picture of how decisions were made under the collaborative arrangements of the National Action Plan. The key forces shaping natural resource management decisions and actions were found to relate to three factors:

1. The design of the institutional arrangements;
2. The decision-making processes; and
3. The characteristics of participant stakeholders.

Decisions were found to be a function of the overarching institutional arrangements that set the pattern for how stakeholders interact, the way in which decisions were made, and the characteristics of the stakeholders themselves (see Figure 6.1). These influential forces were not static but were continuously being reshaped through their interactions and through external influences, such as changing policy objectives and changing political landscapes.

1. The design of the institutional arrangements

The institutional arrangements supporting the National Action Plan introduced procedural changes to the way natural resource management is implemented. While the rhetoric of the National Action Plan advocates an integrated approach to natural resource management, the actual structure of the institutional arrangements does not support such an approach. Analysis conducted in Chapters Four and Five identified that the institutional arrangements of the National Action Plan presented barriers to integrated management. Key barriers included a lack of clarity over stakeholder roles and responsibilities, and the hierarchical structure of decision-making processes.

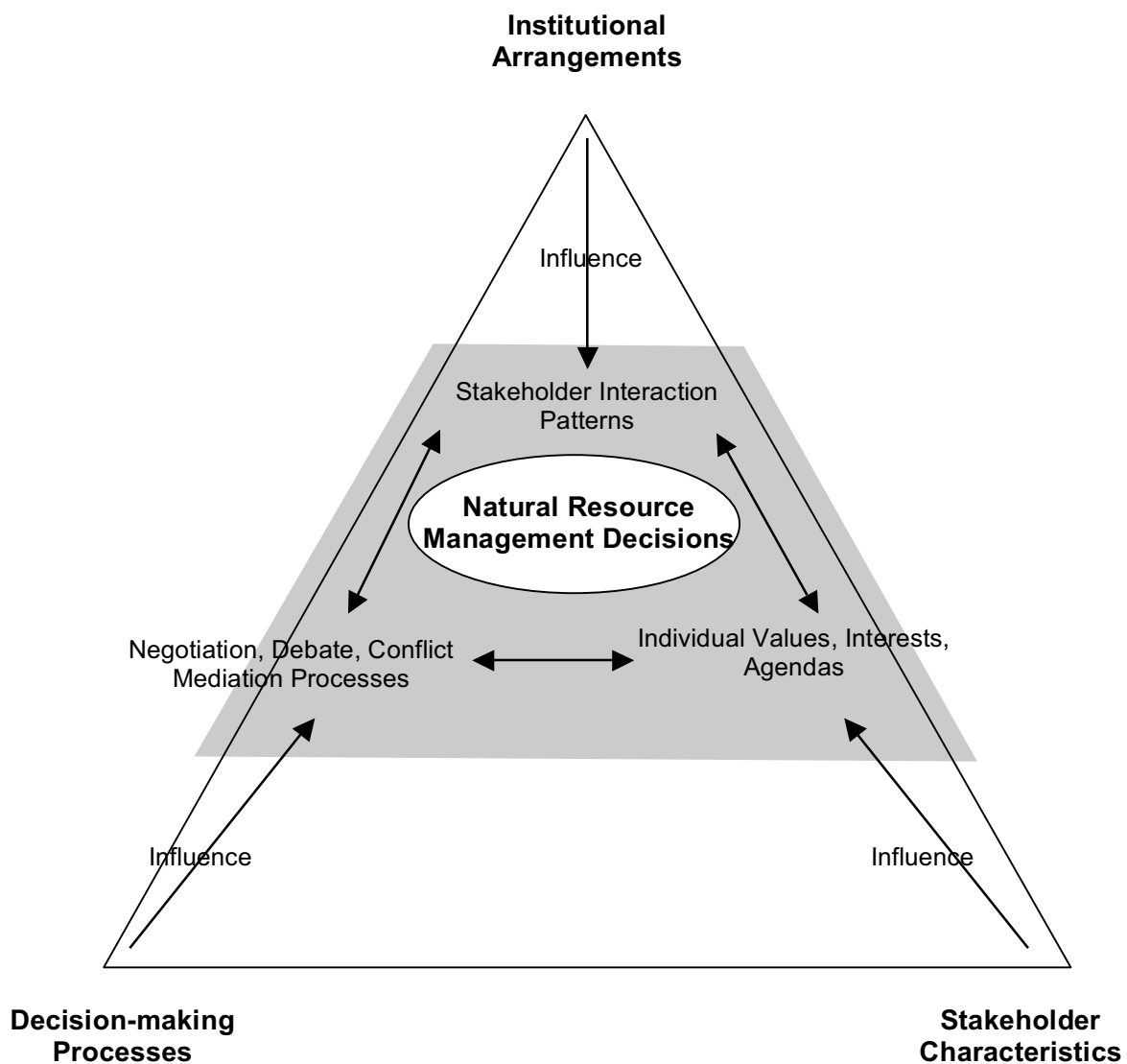


Figure 6.1: The shaping of natural resource management decisions under collaborative arrangements.

Under the hierarchical decision-making structure of the National Action Plan the Condamine Alliance had limited opportunity to influence policy development. Control over key decision-making processes (such as plan accreditation, funding decisions and policy formulation), was maintained by the State and Commonwealth governments through the Regional Managers Forum and the Joint Steering Committee. This structure represents a model whereby responsibility for implementation is devolved to the Regional NRM Body, but the opportunity to substantially influence broader policy decisions is not.

Analysis conducted in Chapter Four identifies one explanation for the design of the institutional arrangements. The institutional arrangements of the National Action Plan introduce procedural reforms to the way that natural resource management is undertaken that coincide with those that advance neo-liberal economic rationalist policy goals. The design of the institutional arrangements of the National Action Plan provide an opportunity for the State and Commonwealth government to devolve responsibility for implementation of natural resource management to the community/local government sector without compromising their ability to control policy formulation. This approach precludes real collaboration and the development of an integrated approach to management. While it may achieve political objectives, such an approach is unlikely to advance natural resource management objectives.

2. Structure of the decision-making processes

Decision-making under the National Action Plan can be identified as belonging to two distinct processes. Firstly, there are those decisions that are shaped by organisational stakeholders representing regional, State, and Commonwealth interests. Secondly, there are those decision-making processes that occur within stakeholder organisations that are shaped by the individual members of an organisation (i.e. internal decisions made within the Condamine Alliance). Analysis conducted in Chapter Five demonstrated that the indicators of IREM (identified in Chapter Two, Table 2.4) were not present within both of these decision-making processes. Instead decision-making processes have been characterised by competition and conflict.

At the organisational level, stakeholder organisations have been engaged in competition for control over policy formulation for natural resource management in the Condamine Catchment. The Commonwealth government sought to increase its role in natural resource management, the State government sought

to shift costs for natural resource management to the Commonwealth, and the Condamine Alliance sought to increase its ability to influence the policy direction for the Condamine Catchment.

At the individual level, stakeholders within organisations (such as the Condamine Alliance and the Condamine Catchment Management Association) sought to gain control over internal decision-making processes. Control over internal decision-making processes would allow individuals to influence the agenda and direction of the organisation, including what work is undertaken and how funds are distributed. Both at the organisational and individual level natural resource decision-making processes in the Condamine Catchment became characterised by polarised factions each seeking to pursue divergent aims, and each unwilling to compromise their interests and perspectives.

Key decision-making processes were also characterised by a lack of accountability and transparency. Decisions could be characterised as lacking evaluative criteria, meaningful debate and public consultation. This lack of transparency was evident both amongst decisions made within the Condamine Alliance, and by accreditation decisions made by the State and Commonwealth government.

3. Stakeholder characteristics

Analysis of the stakeholders engaged in implementing the National Action Plan within the Condamine Catchment (see Section 5.3) revealed many barriers to the development of an integrated approach to natural resource management. The personalities and actions of individual stakeholders exacerbated conflict within the Condamine Catchment. Natural resource management decision-making was characterised by individual stakeholders demonstrating an unwillingness to share information, an inability to leave personal values behind, a lack of respect and trust for other stakeholders and an unwillingness to compromise individual agendas. Conflict arose as individuals sought to assert their values, interests and agendas on others.

The analysis of stakeholder relations within the Condamine Catchment has revealed that conflict was an integral part of natural resource management. Both organisational and individual stakeholders came into conflict as they attempted to gain control over decision-making processes. Conflict within the Condamine Catchment has meant that natural resource objectives have become a secondary consideration. Many individuals demonstrated (both within the

interviews and through actions) that their primary consideration was to gain control of the decision-making process.

These findings highlight the need to focus more attention on the institutional arrangements and characteristics of individual participants when developing or understanding a collaborative approach to natural resource management. Other researchers have identified a lack of focus on the institutional arrangements as a failing of previous research into collaborative planning practice (e.g. Chaskin, 2005; McGuirk, 2001; Selin *et al.* 2000). This research reiterates the importance of institutional arrangements in shaping outcomes and identifies key aspects of the institutional arrangements of the National Action Plan that hindered collaboration and the development of an integrated approach to management within the Condamine Catchment.

Further, this research also identified the characteristics of individual participants as a key influence over decision-making. In the Condamine Catchment a history of tense stakeholder relations and the personalities of key individuals contributed to the development of stakeholder conflict once the National Action Plan was introduced. Stakeholder characteristics and historical relationships are context sensitive (they vary from region to region). Collaborative arrangements that facilitate a collaborative approach in one region may not work in another. This aspect of collaborative decision-making has received little attention in the literature and represents an important extension of our knowledge relating to the way decisions are shaped under collaborative processes.

Finding 2: Introducing a collaborative approach can stimulate conflict

The case study of the Condamine Catchment has revealed that introducing a collaborative approach to natural resource management does not necessarily encourage the achievement of IREM objectives, or lead to substantive improvements to the way resources are managed. This research identified that certain characteristics of the Condamine Catchment, the structure of the National Action Plan and the political environment into which it was introduced were responsible for the failure to move towards integrated natural resource management. By identifying how these characteristics created a barrier for integration, and potential ways to overcome them, it is possible to identify opportunities to improve the implementation of regional natural resource management.

Initiating a collaborative approach to natural resource management introduces new institutional arrangements for natural resource management, which in turn alters the power dynamic that exists between stakeholder organisations and creates the opportunity for new stakeholder relations to be developed. In the Condamine Catchment altering the power dynamic led to conflict and competition. Stakeholders fought to fill the power vacuum created by the withdrawal of government from service provision, and to gain control over decision-making processes. Changing the institutional arrangements governing natural resource management, even when towards a multi-stakeholder approach, can stimulate competitive stakeholder behaviour and hinder the movement towards integrated management (at least in the short-term). To minimise the potential of this occurring measures need to be put in place to manage the transition to new institutional arrangements (see Section 6.4).

Finding 3: Under collaborative arrangements opportunity remains for stakeholders to pursue individual objectives

Introducing collaborative arrangements for natural resource management into the Condamine Catchment did not prevent organisational and individual stakeholders from pursuing objectives that reflected their own interests. When pursuing individual objectives, stakeholders within the Condamine Catchment used power inequalities in attempts to gain dominance or control over other stakeholders. Essentially, those stakeholders who held greater resources (e.g. money, information, political connections) attempted to use these to influence others.

In addition, some stakeholders sought to influence the decision-making process through means such as forming alliances, restricting membership and through attempts to set the decision-making agenda. Within the Condamine Catchment the pursuit of divergent interests led to competition as stakeholders sought to gain control of the process for the benefit of their own interests. This competition stimulated conflict, resistance and distrust - all of which represent barriers to the development of an integrated approach to management.

Finding 4: Natural resource management objectives were given limited consideration when making decisions.

Under the collaborative arrangements introduced with the National Action Plan, natural resource management objectives played a secondary role to political manoeuvring within decision-making processes in the Condamine Catchment.

Decision-making processes were characterised by stakeholders competing for control. Stakeholder agendas, motivations and interests became the primary concern of participants, rather than the issue of natural resource management itself. Stakeholders implementing the National Action Plan became concerned with *controlling* natural resource management in the Condamine Catchment, drawing attention away *implementing* natural resource management.

These findings are important for two reasons. Firstly, by unlocking how natural resource management decisions and actions are developed and identifying the barriers to integrated management approaches makes it possible to identify actions that can be taken to encourage a more integrated approach to management. Secondly, identifying the key forces shaping natural resource decision-making in practice enables a comparison to theory. The following sections address each of these issues in order.

6.3 Toward an integrated management approach within the Condamine Catchment

The Condamine Catchment revealed that introducing a collaborative approach does not necessarily result in improvements in the way that natural resources are managed. This research has identified a number of impediments to the development of an integrated management approach following the introduction of collaborative arrangements in the Condamine Catchment. These impediments relate to the design of the institutional arrangements, decision-making processes and characteristics of individual participants. The research also identifies opportunities to overcome these impediments, including:

- **Encouraging integration through the design of institutional arrangements.**

Institutional arrangements of the National Action Plan were not designed to encourage collaboration. Institutional arrangements guiding natural resource management in the Condamine Catchment imposed a hierarchical approach to decision-making on all stakeholders. The result was conflict over roles and responsibilities, and animosity towards the government stakeholders that developed the institutional arrangements.

One opportunity to encourage integration from the initial stages of policy development is to collaboratively develop institutional arrangements as one of the first exercises of a multi-stakeholder approach to natural resource management. All stakeholders need to be aware of, and agree to, the

institutional arrangements before any real progress can be made. If stakeholders collaboratively develop institutional arrangements there is greater potential that stakeholders will agree to the institutional arrangements, instead of the issue remaining as a source of conflict (as it did in the Condamine Catchment). Such an approach also provides the opportunity to identify, understand and address the interests of individual stakeholders from the beginning of the policy implementation process and can make stakeholders aware of the objectives of the policy initiative and encourage the development of a clear and agreed strategic direction (rather than imposing one on them).

- **Ensure accountability and transparency within decision-making processes**

Decision-making within the Condamine Catchment is characterised by a lack of transparency. A lack of transparency is evident within both the internal decision-making processes of the Condamine Alliance and the State and Commonwealth governments. The structuring of the Condamine Alliance as a private company has hindered the development of collaborative relations between government stakeholders and the Regional NRM Body. Closed Board Meetings have marginalised government stakeholders from engaging in the plan development process. The corporate structure has also raised suspicion amongst community-based stakeholders and hindered the development of strong relations with the wider community.

Similarly, there has been a lack of transparency for plan accreditation and funding decisions made by State and Commonwealth agencies through the Regional Managers Forum and the Joint Steering Committee. This lack of transparency has created frustration and suspicion for the Condamine Alliance and other community stakeholders. The reasons for this lack of transparency include the personalities of individuals, and a desire to advance organisational agendas. Encouraging greater transparency may not overcome these barriers, but it will provide accountability that will help to build trust.

- **The need for a change management process**

The National Action Plan appears to have been implemented without a well thought out model of delivery and without clear leadership from either the State or Commonwealth government. Evidence of this is demonstrated through the uncertainty over roles and responsibilities of key stakeholders, and through the delays and problems evident with the assessment and accreditation process. At

the regional level this has created uncertainty about future directions and frustration over how the process has been managed, exacerbating the conflict that is evident between the Condamine Alliance and government stakeholders. To some extent, conflict may be able to be managed through a well-designed change process that provides a transition between the two power arrangements. By instituting a change management process, one in which the objectives, decision-making structures and roles and responsibilities are formulated and clearly communicated, many of these problems may be negated. A change management process may also include concerted efforts to build relationships through identifying mutual goals and shared interests at an early stage in the implementation process. Such action at an early stage can help to minimise the competition and conflict that was evident in the Condamine Catchment. Fundamentally, it is the role of government, as the introducer of policy initiatives, to manage the introduction of new institutional arrangements. In the Condamine Catchment both the State and Commonwealth government adopted a role of non-intervention, failing to discourage the competition and conflict following the introduction of the National Action Plan.

- **Addressing stakeholder characteristics**

Findings from this research identify that the characteristics of individual stakeholders play a significant role in shaping stakeholder relations. This research identified that stakeholders brought their values, interests and perspectives into decision-making processes. Conflict resulted when stakeholders came into contact with others that held divergent values, interests and perspectives. The influence of individual stakeholder characteristics is uncontrollable through external measures, such as the design of institutional arrangements and decision-making processes. Multi-stakeholder approaches can be designed to bring stakeholders with rival interests together in an environment that promotes debate and mutual learning, but the way individuals interact, and the degree to which they are open to attitudinal change, are dependant on the participants themselves.

While institutional and decision-making structures cannot prevent conflict, mediation, conflict resolution strategies and rules governing stakeholder interactions can help moderate and manage personality clashes and conflict when they occur. The need for mediation in managing stakeholder relations implies that there is a role for a facilitator or co-ordinator. No such role existed

within the Condamine Alliance. While there was an independent Chair, the person in this position did not have a mandate (or the support) to fulfil this facilitator role.

The consequences for the Condamine Alliance were that there was no independent or unaligned group or individual to intercede and mediate disputes between rival interests. Conflicts were not resolved. Instead, conflict was allowed to drag on, or was momentarily forgotten only to rise again at a later date. By having a facilitator or co-ordinator whose role is to maintain or improve stakeholder relations many of the conflicts that have hindered the implementation of natural resource management may have been resolved much earlier on.

The findings of this research present the evidence needed to answer the research question. Through a detailed study of a case study of collaborative planning practice new knowledge concerning how decisions and actions are shaped within collaborative approaches to regional natural resource management has been developed. By comparing/contrasting practice with the assertions, predictions and underpinning ideas of communicative planning theory it is possible to determine whether this concept represents appropriate procedural theory to guide the Condamine Catchment toward a more integrated approach to natural resource management.

6.4 IREM and communicative planning theory: Theory versus practice

Through an evaluation of the institutional arrangements framing the National Action Plan (Chapter Four) and the decision-making processes and stakeholders involved in implementation within the Condamine Catchment (Chapter Five), the key forces shaping natural resource management decisions and actions were found to relate to three factors:

- The design of the institutional arrangements;
- The decision-making processes; and
- The characteristics of participant stakeholders.

By marrying these findings with Yaffee's (1998) concept of centrifugal and centripetal forces (see Figure 2.4), a model of the forces required to encourage IREM within the Condamine Catchment can be developed (see Figure 6.2).

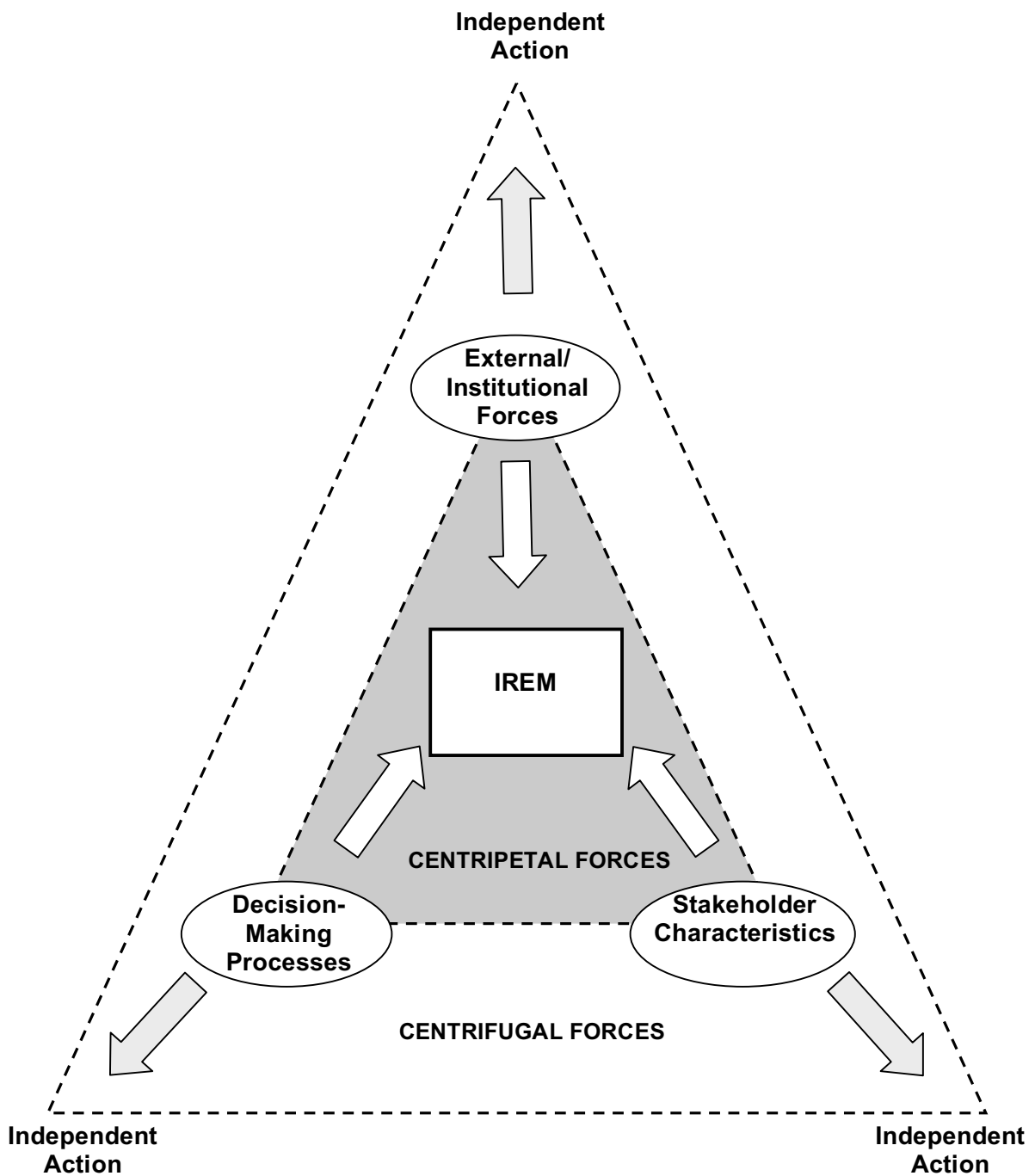


Figure 6.2: Relationship between the forces necessary to encourage IREM within the Condamine Catchment

When this model is combined with the indicators of IREM and the questions necessary to identify their presence/absence (see Table 2.4, Section 2.6) it becomes possible to identify the centripetal and centrifugal forces encouraging/discouraging an integrated approach to management within the Condamine Catchment (see Table 6.1). Within the Condamine Catchment centrifugal forces were found to outweigh the centripetal forces, meaning that stakeholders were encouraged more toward independent action than toward an integrated approach to management. The types of centrifugal forces operating within the Condamine Catchment have implications for theory relating to the implementation of regional natural resource management.

Chapter Two critically investigated the concept of communicative planning theory, unpacking its constituent ideas, tracing its development and identifying the opportunities and limitations of this concept. By using the findings emanating from this analysis of practice as a framework, it is possible to examine whether communicative planning theory adequately explained or contended with the forces shaping natural resource decisions within the Condamine Catchment and whether this concept represents appropriate procedural theory to move the Condamine Catchment towards a more integrated approach to management.

Such an analysis reveals three criticisms concerning the application of communicative planning theory as procedural theory to guide the implementation of IREM. These criticisms include that communicative planning theory:

1. Fails to acknowledge the influence that institutional arrangements have in decision-making;
2. Underestimates the persistence and influence of individual stakeholder characteristics; and
3. Inadequately addresses issues of stakeholder conflict and competition.

	IREM	
	Centripetal Forces	Centrifugal Forces
External/ Institutional Forces	Recognition of community and local government as key stakeholders	<ul style="list-style-type: none"> - Institution of a hierarchical approach to decision-making - Lack of clarity over stakeholder roles and responsibilities - Insufficient time for relationships to develop before the Regional NRM Plan deadline
Stakeholder Characteristics	<ul style="list-style-type: none"> - Some stakeholders committed to integrated management - Some stakeholder show respect for others and interact in an open and honest way 	<ul style="list-style-type: none"> - Some stakeholders not committed to integrated management - Some stakeholders do not show respect for others and do not interact in an open and honest way - Many stakeholders hold insufficient skills/capacity to develop and implement the Regional NRM Plan
Decision-making Process	Wide stakeholder representation	<ul style="list-style-type: none"> - Lack of clear decision-making criteria, defined goals and objectives - Lack of transparency in decision-making - Information not shared amongst stakeholders - Insufficient opportunities provided for public involvement

Table 6.1: Summary of the centripetal and centrifugal forces for IREM within the Condamine Catchment

- **Institutional arrangements and communicative planning theory**

One of the key limitations of communicative planning theory, as identified in Chapter Two (see Section 2.4.3), was a failure to acknowledge and account for the influence institutional arrangements have on decision-making. This research identifies the important role institutional arrangements played in influencing how stakeholders interact and the degree of control each holds over decision-making within the Condamine Catchment - supporting previous findings in the literature (see Lachapelle et al., 2003; McGuirk, 2001; Buchy & Race, 2001; Kellert et al., 2000, Leach, Mearns & Scoones, 1999). This finding highlights the need for multi-stakeholder approaches to be supported by institutional arrangements that facilitate integrated management. Communicative planning theory fails to take into account the institutional context within which stakeholders interact, and how this context shapes the content of natural resource decisions (Chaskin 2005; McGuirk, 2001; Margerum, 1997; Kraft & Johnson, 1999).

Institutional arrangements that encourage integrated approaches to management need to be in place, or this objective will not be achieved. Communicative planning theory offers limited direction on how institutional arrangements shape decisions, or how to design appropriate institutional arrangements to encourage integrated approaches to management.

- **Stakeholder characteristics and communicative planning theory**

Within the Condamine Catchment, competition between stakeholders to extend their control over natural resource management resulted in the development of relations characterised by conflict. Conflict was the result of two main factors: the personalities of individuals, and their unwillingness to compromise individual interests to achieve outcomes that benefit the entire catchment. Stakeholders behaved as if they were representing a particular interest sector, and not the region as a whole.

Communicative planning theory indicates that stakeholders, when engaged in a collaborative approach, should come together in a value-free environment and, through a process of argumentation, negotiation, and debate, arrive at a mutually agreed decision. Drivers encouraging this decision to pursue collective gains are described as a development of a feeling of solidarity among participants as they learn more about each other and identify similarities and opportunities for mutual gain (see Sager 1994; Healey 1997; Innes 1995; Innes & Booher 1999). Through critically analysing their own values and behaviour,

stakeholders are hypothesised to identify actions that they take that negatively affect others and alter their behaviour accordingly.

The issue of attitudes, interests and values is not adequately addressed by communicative planning theory (McGuirk, 2001; Tewdwr-Jones & Allmendinger, 1998). Proponents of communicative planning theory propose that stakeholder attitudes, interests, and values can be collectively reshaped through relationship building in order to pursue collective objectives (see Innes & Booher, 1999; Healey, 1992; 1997; Sager, 1994). The Condamine Catchment demonstrated that participants bring their perceptions and interests into a collaborative approach, a finding supported by other studies in the literature (see Moote et al., 1997; Paulson, 1998; Kellert et al., 2000; McGuirk, 2001; Parkins, 2002; Bradshaw, 2003).

Natural resource management within the Condamine Catchment was influenced by the interests, values, perspectives and interests that individual participants brought into the decision-making process. Within the Condamine Catchment the values and interests of stakeholder were divergent, and stakeholders were unwilling to compromise their interests to reach a collective agreement. In this context, movement towards an integrated approach to management was not possible. This finding is supported in the literature, with both Yaffee (1998) and Flyvbjerg (2002) identifying that stakeholders are often motivated by self-benefit and outcomes are often shaped by the most powerful interests.

As Selin et al. (2000) and Carr et al. (1998) identify, integrated approaches to natural resource management can only be achieved when stakeholders are willing compromise and negotiate their interests. The introduction of collaborative arrangements did provide an environment where stakeholders were challenged to analyse their perceptions, attitudes and interests. However, it was clear that an integrated approach could not be achieved within the Condamine Catchment. Stakeholder interests were too divergent, and individuals were unwilling to examine and alter preconceived positions and interests.

Communicative planning theory fails to provide an appropriate framework to guide action in the Condamine Catchment because the onus is on the individual to leave their attitudes, values and preconceived ideas behind, and challenge themselves to listen, debate and redefine their own position. Such an approach requires commitment to developing open and trusting relations. The non-

intervention, relationship building approach embedded within communicative planning theory requires consensus between all stakeholders to solve problems collectively. Findings from this research suggest that the degree to which stakeholders commit to the process and alter their preconceived ideas is largely up to individual stakeholders. In the Condamine Catchment, stakeholders chose not to re-examine or compromise their interests. Communicative planning theory fails to acknowledge or contend with this scenario, offering little direction on how to move forward other than to continue to work on relationship building.

- **Conflict, competition and communicative planning theory**

Chapter Two (see Section 2.4.2) identified that a key limitation of communicative planning theory was that it fails to engage with the issue of power inequalities (see Flyvberg, 1998; 2002; McGuirk, 2001; Hillier, 2003). Proponents of communicative planning theory tend to assume away the issue of power, proposing that the introduction of a collaborative approach draws stakeholders together and overcomes pre-existing inequalities. Findings from the Condamine Catchment suggest that this is a somewhat naïve suggestion.

Introducing collaborative arrangements did not serve to overcome power inequalities within the Condamine Catchment. Stakeholders reacted to the introduction of the new institutional arrangements as if they were an opportunity to redefine roles and responsibilities, and to increase their control over how natural resources were managed. Stakeholders attempted to use power inequalities to gain greater control by pressuring others, establishing alliances and by trying to set the decision agenda. This is a scenario previously described in other case studies within the literature (Buchy & Race, 2001; McGuirk, 2001; Parkins, 2002; Bradshaw, 2003).

It must be acknowledged that the introduction of the National Action Plan did not directly create competition and conflict between stakeholders within the Condamine Catchment. Competition and conflict already existed. When the new arrangements failed to overcome power inequalities and encourage collaboration they merely became a different stage for the continued fight for control over the decision-making process.

Communicative planning theory offers limited guidance for how to pursue integrated management in the Condamine Catchment, where stakeholders have become engaged in the process as a means to achieve pre-defined individual objectives. This case study demonstrates that communicative planning theory

does not adequately acknowledge issues of power, variability of communication and governance capacities and resource inequalities that exist or can emerge when stakeholders compete for control. In contexts such as the Condamine Catchment, communicative planning theory offers little advice on how to improve the implementation of natural resource management other than to say that personal relationships should be improved and opportunities for collective gain identified (e.g. Innes, 1995; Healey, 1997; Innes & Booher, 1999).

When stakeholders are pursuing diametrically opposed goals linked to the achievement of their own agendas, collaborative planning theory advice offers little opportunity to move towards more collaborative relations and integrated outcomes. Indeed, in the case of the Condamine case study, collaborative planning theory represents little more than a metaphorical and unattainable ideal. Its appeal lies in some well intentioned notion of shared values and collective understanding, but this case study illustrates that, unless considerable effort is devoted to developing local skills and capacity, collaborative planning theory provides little assistance in dealing with 'real world' resource management problems.

These findings endorse the view maintained in the policy science literature that the natural resource management policy formulation process can be described in Foucauldian terms as a continuous competition between stakeholders for control over the policy-process (see Flyvbjerg, 1998; Sharp & Richardson, 2001). This Foucauldian view of stakeholder relations is supported by other case study descriptions of research into multi-stakeholder approaches to natural resource management (e.g, McGuirk, 2001; Reed, 1995; Haight & Ginger, 2000; Bradshaw, 2003; Kellert et al., 2000). It is a view of the policy formulation process that is not compatible with the assumptions relating to stakeholder behaviour and relationship development implicit to communicative planning theory.

6.5 Conclusion

A review of the institutional arrangements, decision-making processes and stakeholder characteristics has shown that within the Condamine Catchment the collaborative approach to natural resource management initiated by the National Action Plan has failed to pursue IREM objectives. Centrifugal forces acting on stakeholders exerted more pressure than centripetal forces, encouraging independent action over an integrated approach to management. The three key

barriers (centrifugal forces) to integrated management identified within this research can be summarised as:

1. Institutional arrangements that implemented a hierarchical approach to natural resource management;
2. Lack of clarity over stakeholder roles and responsibilities; and
3. Actions by both individual and organisational stakeholders to gain control of natural resource management to pursue individual objectives.

A comparison of natural resource management practice from the Condamine Catchment to communicative planning theory indicates that this theory does not adequately explain or contend with the centrifugal forces identified as shaping natural resource management decisions and actions within the Condamine Catchment. Communicative planning theory fails to contend with the power, control and competition evident within natural resource management in the Condamine Catchment.

This research presents a number of findings relating to both natural resource management within the Condamine Catchment and to broader questions relating to the role of collaborative planning theory in implementing regional natural resource management. Chapter Seven draws together these findings to answer the research questions first posed in Chapter One, identifies the limitations of the study and highlights important research directions for the future.

Chapter Seven

Conclusions

7.1 Introduction

This thesis sought to answer the question:

Does communicative planning theory represent an appropriate procedural theory for Integrated Resource and Environmental Management?

This research addresses this question through a case study analysis of the implementation of the National Action Plan within the Condamine Catchment. The focus of this research was on the procedural aspects of natural resource management implementation. This research critically analysed the institutional arrangements, decision-making processes and stakeholder characteristics to address the research objectives:

Research Objective 1: To explore the concepts of IREM and communicative planning theory within the literature with a view to understanding how communicative planning theory has come to be proposed as procedural theory to guide the implementation of IREM;

Research Objective 2: To develop a set of criteria that evaluates whether IREM objectives are being pursued within a collaborative approach to natural resource management;

Research Objective 3: To develop a research approach that applies the above criteria to identify, explain and evaluate natural resource management under the National Action Plan in the Condamine Catchment;

Research Objective 4: To evaluate whether the implementation of the collaborative approach to natural resource management initiated by the National Action Plan encourages the achievement of IREM objectives in the Condamine Catchment; and,

Research Objective 5: To evaluate whether communicative planning theory, as the dominant procedural theory underpinning collaborative planning practice, adequately explains/predicts stakeholder relations,

decisions and actions within the Condamine Catchment and offers direction to move further toward an integrated approach to management.

Chapters One, Two and Three addressed the first three research objectives of this study (as outlined in section 1.3 and Figure 1.2). Conclusions from this research focus on addressing research objectives four and five. Following a synthesis of the key research findings the contributions associated with these objectives are discussed in Section 7.4.

7.2 A synthesis of the Condamine Catchment natural resource management context

The findings of this research suggest that the National Action Plan did not encourage an integrated approach to natural resource management in the Condamine Catchment. Through the design of the accreditation process government stakeholders have ensured that they have final control over the development and implementation of natural resource management policy. This control is mainly achieved through the Regional Managers Forum and the Joint Steering Committee, that assess and accredit plans and proposals developed by the Condamine Alliance. This structure has ensured that the Condamine Alliance are effectively denied control over critical stages of the policy cycle, a situation further entrenched by the dependence the Condamine Alliance has on the government stakeholders for funding.

These arrangements encourage conflict by instituting a hierarchical structure to the decision-making process. For the Commonwealth this structure has fostered the adoption of an “overseer” role and interrelated attempts to control all aspects of the implementation of the National Action Plan. The introduction of the National Action Plan has also allowed the State government to redefine its role away from service delivery towards a policy-making and regulatory function. Redefinition of roles and responsibilities has encouraged a business relationship between the Condamine Alliance and State government stakeholders, hindering the sharing of information and experience. It is a relationship that has been compounded by the development of the Condamine Alliance as a private company.

A lack of clarity over the roles and responsibilities of key stakeholders in the catchment has also hindered the development of a collaborative/integrative approach to implementation. This lack of clarity has been exploited by State and

Commonwealth governments through attempts to shift costs and responsibilities. Conversely, the Condamine Alliance has been slow to act, being uncertain of their role, responsibilities, and how they should proceed. The outcome has been a lack of strategic direction and doubt concerning the ability of the National Action Plan to effect long-term improvements to the environment. Lack of clarity has also contributed to the development of suspicion and scepticism over the perceived underlying agenda of the government stakeholders. Whether real or imagined, this scepticism has damaged the potential for genuine collaboration.

In analysing the attitudes and perspectives of participants it was evident that key stakeholders were not committed to pursuing an integrated and collaborative management approach. Representatives of government stakeholders demonstrated little desire to devolve responsibility for decision-making to the Condamine Alliance. This attitude conflicted with views held by representatives of the Condamine Alliance, who believed the National Action Plan provided them with a mandate to develop natural resource management policy without the interference of government stakeholders. A collaborative approach cannot be achieved when both stakeholders believe they have a mandate for implementing natural resource management and do not acknowledge the role, skills and opportunities that others bring to the process.

Even within the Condamine Alliance there was a lack of commitment to develop a collaborative approach, as members fought for control over internal decision-making processes in an effort to influence the outcomes for their own benefit. Conflict resulted as stakeholders sought to pursue the attitudes, values, interests and beliefs that each brought into the process. The pursuit of individual interests came at the expense of developing a holistic approach to management and developing outcomes that reflected collective gain. Personalities of individuals were also identified as hindering collaboration. Individual stakeholders failed to treat others with respect and this prevented the development of open and trusting relationships.

Collectively these forces encouraged independent action and discouraged an integrated approach to management. Natural resource management objectives became a secondary concern in decision-making processes. Stakeholders demonstrated, through their attitudes, decisions and actions that the maximisation of self-benefit (through the pursuit of individual goals) constituted

their primary concern. However, it must be acknowledged that while centrifugal forces outweighed centripetal forces in encouraging independent action there were examples where stakeholders demonstrated commitment to pursue a more integrated approach to management. A number of stakeholders were able to identify some barriers to integrated management, however, they were unable to identify solutions or engender enough support from other stakeholder within the natural resource management network to overcome them.

Through an analysis of the barriers to an integrated approach to management within the Condamine Catchment this research was able to identify opportunities to overcome these barriers, including:

- **Designing institutional arrangements that more accurately encourage an integrated approach to management.** The rhetoric of the National Action Plan identified integrated management as an objective of the policy, but failed to put into place a policy framework that encouraged the achievement of this objective. Perhaps the single most important improvement that could be made to the National Action Plan is to clearly articulate the present and future roles and responsibilities of all participant stakeholders
- **Ensuring accountability and transparency within decision-making processes.** There were too many examples of natural resource management decisions that were not substantiated by clearly communicated criteria. To maintain confidence in, and commitment to, the implementation of the National Action Plan decisions should be based on clear and consistent criteria.
- **Implementing a change management process to transition stakeholders from the old to the new institutional arrangements.** Introducing new institutional arrangements changes the roles, responsibilities and power dynamic of stakeholders. During this process there is potential for conflict and competition as traditional stakeholders may seek to maintain previous levels of control over natural resource management decisions while new stakeholders seek to extend/expand their own levels of influence. Through a process of informing stakeholders of the upcoming changes, addressing concerns and clearly articulating the reasons driving the changes conflict and competition may be minimised.

- **Acknowledging stakeholder characteristics as an influential force in natural resource management decision-making and addressing this issue through mediation, conflict resolution and having clear and mutually agreed goals and objectives.**

Implementing these suggestions at the policy development phase of the National Action Plan may have minimised the number of the barriers identified as impeding an integrated approach to natural resource management within the Condamine Catchment.

7.3 IREM and collaborative planning theory

Comparing theory to practice demonstrated that communicative planning theory did not adequately explain or contend with key forces that shaped natural resource decision-making within the Condamine Catchment. Findings of this research suggest that communicative planning theory does not represent an adequate procedural theory to guide the Condamine Catchment toward a more integrated approach to management. While communicative planning theory represents a seductive ideal, and an admirable goal, it offered limited guidance as to how integrated management can be practically pursued within the case study.

Chapter Two of this thesis argued that the acceptance of communicative planning theory within the planning literature and in practice is not based on empirical research. Instead, its acceptance may reflect the reformist historical underpinnings of the planning profession and the economic, social and political context that existed at the time of its emergence as a critical theory. Communicative planning theory was advanced as a procedural theory when the planning discipline was marginalised from policy-making and was searching for its place in society.

Similarly, the application of this theoretical framework in practice in natural resource contexts may have more in common with the current political and economic environment than evidence of its hypothesised benefits. Evidence from the Condamine Catchment case study, and supported in the literature (see Lyster, 2002; Bradshaw, 2003), indicate that collaborative models are being advocated and implemented by government because it coincides with the neo-

liberal economic rationalist policies of the day; not because they facilitate integrated approach to natural resource management.

Findings from this research reiterate that regional natural resource management can be characterised by continuous power struggles for control over decision-making processes. The introduction of collaborative arrangements can create an environment in which this competition is exacerbated, as happened in the Condamine Catchment. This research provides a timely reminder that the transition toward collaborative forms of governance may not be appropriate in all natural resource management contexts can have negative consequences. Collaborative forms of governance may not be appropriate in all natural resource management contexts.

This research reiterates the growing calls (e.g. McGuirk, 2001; Reed, 1995; Bradshaw, 2003; Haight & Ginger, 2000; Buchy & Race, 2001) for the evaluation of collaborative approaches to determine if they achieve the benefits described by its proponents. This growing body of literature highlights a need for communicative planning theory to be viewed and represented in the literature as one *possible* model for decision-making with particular positives and negatives, rather than *the* model of decision-making.

In the context of regional natural resource management, this case study analysis found that communicative planning theory failed to address key forces that had a significant influence in shaping natural resource decision-making in the Condamine Catchment. As procedural theory, communicative planning theory offers limited guidance to move natural resource management within the Condamine Catchment towards a more integrated approach to management. The barriers to integrated management identified within the Condamine Catchment were issues that communicative planning theory failed to address, and failed to present realistic solutions to overcome. These findings relate to one case study area, but provide foundation (including an evaluative framework) for further research into whether communicative planning theory represents an appropriate procedural theory to advance IREM.

7.4 Contributions of the research, limitations and recommendations for further research

Contribution 1: Unpacking the concept of collaborative planning theory in relation to natural resource management

By tracing the development of collaborative planning theory, identifying its theoretical foundations and identifying why the concept came to be applied to natural resource management contexts this thesis makes a valuable contribution to the natural resource management literature. Discussions in the literature concerning the potential role of collaborative planning theory in implementing natural resource management have typically not been supported by a rich discussion of the concepts underpinning this theory.

This thesis argued that understanding the concepts underpinning collaborative planning theory is an important foundation for the evaluation of the applicability of this theory to natural resource management. By providing this understanding, this research presents a discussion that not only informs the evaluation undertaken within this thesis but also provides a theoretical foundation for future work.

Contribution 2: Analyses of a collaborative approach to natural resource management from its inception.

The focus of this research on the initial phase of implementation of the National Action Plan presented both opportunities and limitations. The three-year time duration of the study has traced the implementation of regional natural resource management under the collaborative arrangements of the National Action Plan in the Condamine Catchment from its inception right through to the development of a Regional NRM Plan. Part of the significance of this research is that it focuses on the early development stages, providing rich information concerning the initial stages of a multi-stakeholder approach. Following the National Action Plan from its initial introduction into the Condamine Catchment provided a view of the forces that shape stakeholder decisions and actions within a turbulent transitional period. Research during this phase of policy implementation yielded insights that may not have been so clear within other phases of the policy implementation process.

However, one could argue that the multi-stakeholder approach is yet to fully mature. Without analysing the relations of a stable and mature Condamine Alliance, it makes it difficult to predict future outcomes and relationships in the Condamine Catchment. A recommendation for further research is to follow the implementation of the National Action Plan within the Condamine Catchment, developing a longitudinal study of stakeholder relations and the influential factors that stimulate change in them.

In particular, it would be interesting to reanalyse stakeholder relations during the implementation phase of the Regional NRM Plan to identify how the stakeholder relations that currently exist in the development phase effect how natural resource management is implemented. This analysis would provide valuable information concerning the relationship between the shape of stakeholder relations and management action. Adopting a similar methodological approach with interviews and participant observation forming the primary sources of data and using the same evaluative framework to analyse the data, would certainly allow a useful comparison.

Contribution 3: The research approach

The research approach used within this thesis represented a contribution, but also set boundaries (or limitations) as to how the findings could be interpreted. Conducting in-depth research using a single case study has provided the researcher with valuable insights into multi-stakeholder approaches to natural resource management relating to the influential forces shaping decisions. It has provided a richness and depth of information not possible from other research approaches.

The single case-study research approach, however, has limited the external validity of the research, restricting the ability to make generalisations from the research findings. Sacrificing external validity for depth of information was, however, a conscious decision. As Chapter Two demonstrated, there is a lack of rich information concerning the implementation of regional natural resource management in multi-stakeholder settings in the literature. It is a deficiency this research contributes to filling. The contribution of this research is not that it provides a description or prediction of how stakeholders behave and interact in *all* multi-stakeholder approaches to natural resource management, but to provide detailed information about one such example contributing to the

development and further refinement of knowledge surrounding the implementation of regional natural resource management in such settings.

Previous research into multi-stakeholder approaches to natural resource management has typically been survey-based, resulting in a “snap-shot” of stakeholder relations. To identify the key influential forces shaping natural resource decisions this research adopts a more in-depth approach tracing the development of a single case study. Recommendations would be for similar research to be carried out in other case studies of multi-stakeholder approaches using a similar research approach. These results would allow the comparison of findings and help contribute towards developing a wider body of theory concerning the implementation of regional natural resource management in a multi-stakeholder setting. This body of theory would provide a valuable resource for those practitioners charged with undertaking such work.

Contribution 4: Identifying the forces shaping decisions under multi-stakeholder approaches to natural resource management

This thesis clearly defined the key forces found to be shaping natural resource management decisions within the Condamine Catchment. These key forces included the structure of institutional arrangements, decision-making processes and the characteristics of individual participants. Discussions exist within the literature concerning the role of these forces in influencing natural resource management decisions independently, however, the relationships between these forces and the way they collectively influence decisions has not been clearly investigated.

By drawing together empirical research from the literature and through the evaluation of decision-making within the Condamine Catchment, this research provides a clearer picture of how natural resource management decisions are shaped under collaborative arrangements. This picture has helped to develop a evaluative criteria to “unlock” decision making in the Condamine Catchment. This tool, in conjunction with the findings of this research, can help natural resource management practitioners and researchers to identify and understand the forces shaping decisions in other regions.

Contribution 5: Building grounded theory for IREM implementation

The results of this research indicate that there is limited guidance for practitioners as to how to implement regional natural resource management in multi-stakeholder settings. This research contributes toward filling this gap by building grounded theory relating to the role of collaborative arrangements in implementing regional natural resource management from a case study of the Condamine Catchment.

Collaborative models of implementation are currently gaining dominance as the preferred delivery vehicle of regional natural resource management (as typified by the procedural characteristics described within integrated resource and environmental management). Findings demonstrated that the dominant theory (communicative planning theory) underpinning collaborative models of governance fails to adequately address the contextual forces that shaped stakeholder relations in the Condamine Catchment. This finding raises questions concerning the role this theory has in implementing IREM. This research implies that more detailed procedural theory is required that addresses the complex contextual forces that shape decisions within multi-stakeholder approaches to regional natural resource management.

Results from this research indicate that procedural theory to guide IREM should engage with issues of power and dominance. It should provide tools (such as the evaluative framework developed within this thesis, presented as Table 2.4) to explore decision-making within each implementation context, and identify how power is expressed within them. Approaches and techniques to overcome these inequalities and move relations towards an integrated approach to management should also be identified. Such an approach would create a much-needed link between the theoretical and practical arms of the resource and environmental management field, an element absent from collaborative planning theory.

Findings from this research demonstrate that introducing collaborative arrangements for regional natural resource management does not necessarily result in movement toward integrated management approaches. Within the Condamine Catchment natural resource decisions were identified as being shaped by both the *institutional* and *stakeholder context* of a particular region. To move towards integrated models of natural resource management, practitioners and researchers need to develop a better understanding of, and

engage with, these contextual influences. Descriptions of practice, therefore, should not aim to provide overarching theories to guide action, but instead should remain context sensitive discussions of particular practical examples. While broader theory can provide general guidance for how to encourage integrated management, practitioners will also have to rely on their own evaluations of the context within which they are working. The evaluative framework developed within this research provides them with one tool to undertake this.

In terms of this case study research, the value of this work is not in its prescription or development of a decision-making model that will transform stakeholder behaviour towards integrated action. Instead, the value of this work is its contribution towards the development of a conceptual framework to enable individuals (or organisations) to evaluate their political, institutional and social environment to enable them to decide how to proceed towards IREM. This is in contradiction to the search for an overarching procedural model to guide the implementation of collaborative planning currently dominating the planning and the resource and environmental management literature (see Margerum, 1997, 1999a; Gunton & Day, 2003).

When viewed in this context, this research represents a significant development that can help researchers and practitioners alike to better understand specific examples of regional natural resource management approaches. The research approach utilised within this research, and the tools it provides, is an important precursor to broader theoretical development. Further application of this research approach can increase the number of cases investigated, and enable broader theoretical development.

7.5 Final reflections

Collaborative models of implementation are increasingly being advocated as a solution to the fragmented and multi-stakeholder context in which regional natural resource management must be undertaken. Given this context, and the many benefits collaborative approaches offer, collaborative models represent perhaps the most promising approach. Communicative planning theory, however, does not adequately address the complex contextual forces that shape decisions within regional natural resource management. If collaborative models

of decision-making are to be pursued procedural theory that reflects the context sensitive nature of natural resource management needs to be developed.

Designing institutional arrangements and decision-making processes that encourage collaboration, debate and relationship development between stakeholders can provide an *opportunity* for stakeholders to engage in a collaborative approach to natural resource management. Decisions and action, however, are also dependent on the personalities, values, attitudes and history of the participants themselves. The role that these forces play in shaping relations, decisions and outcomes is an issue that has received little attention in both the planning and resource and environmental management literature. In short, changing the structure of the decision-making process does not change participant behaviour. It merely provides the opportunity for participants to change themselves:

I have this saying where in any committee or group you have the people that are there for ego. Then you have got the people that are there for what this can do for me, be that a job or money or whatever. And down the bottom, the smallest percentage of all, are the people who really give a shit. (pers. comm., Participant T)

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Legislation

The Integrated Planning Act 1997 (Queensland)

Personal communications

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Appendix A

Environments Journal Article

Murray, D. (2005). A Critical Analysis of Communicative Rationality as a Theoretical Underpinning for Collaborative Approaches to Integrated Resource and Environmental Management. *Environments*. 33(2) 17-34.

**Title: A Critical Analysis of Communicative Rationality as a Theoretical Underpinning
for Collaborative Approaches to Integrated Resource and Environmental
Management**

Key words: Collaborative planning, Integrated Resource and Environmental Management, communicative planning theory

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Dan has recently submitted his doctoral thesis at Griffith University, Brisbane, Australia. The doctoral research focused on evaluating collaborative approaches to natural resource management, with specific focus on the theory underpinning these approaches. By drawing on his planning background Dan seeks to introduce a different perspective on recent theoretical developments within the field of natural resource management.

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Abstract:

Communicative planning theory is increasingly being advocated as procedural theory to underpin collaborative approaches to Integrated Resource and Environmental Management. Yet this is occurring without critical analysis of the [theoretical] foundations that underlie this theory. By critically analysing communicative planning theory, and its application to Integrated Resource and Environmental Management, this article describes the [theoretical] foundations of this approach to decision-making. In particular, the hypothesized benefits of communicative planning theory and the ways in which they are to be achieved are described and critiqued.

This paper identifies four limitations of communicative planning theory, when applied in natural resource management contexts. Firstly, communicative planning theory fails to acknowledge and account for the influence that external forces have in shaping decisions and outcomes; secondly, it fails to adequately account for the role that power inequities play in shaping outcomes; thirdly, it encourages socially constructed (rather than scientifically developed) decisions and outcomes; and finally, it provides no evidence to suggest that the decision-making process advanced in communicative planning theory results in better management of natural resources.

In response to criticism, early proponents of communicative planning theory are beginning to revise previous assertions to temper the expectations arising around this theory. These recent developments have yet to be clearly discussed within the natural resource management literature. Findings of this paper indicate that caution should be exercised in the encouragement of communicative planning theory until the limitations of this concept are more fully understood and addressed.

Resumé:

Introduction

The fields of planning and natural resource management are similar. They both operate in contexts that involve multiple stakeholders and they both address problems that are inherently complex. In response, both fields have long advocated collaborative approaches as a way to make decisions in such contexts. Collaborative approaches to natural resource management have been advocated and implemented for over seventy years (see Mitchell 1986) and have permeated all aspects of the literature, including: Integrated Resource and Environmental Management (e.g. Born and Sonzogni 1995, Margerum 1997), co-management (e.g. Reed 1995, Paulson 1998), and adaptive management (e.g. Schreiber *et al.* 2004).

In the planning literature, Arnstein's (1969) discussion of multi-stakeholder decision-making forms an important introduction to collaborative approaches. Since Arnstein's (1969) thought-provoking work, many authors in the planning field have attempted to find and/or develop theoretical foundations, specifically procedural ones, to guide collaborative planning approaches (e.g. Friedman 1973, Sagar 1994, Innes 1995, Healey 1997). For many, this search has become focused on Habermas's theory of "communicative rationality" (see Forester 1985, Sagar 1994, Healey 1997). The resulting procedural theory, described by the term communicative planning theory, has gained substantial acceptance within the planning literature as the dominant, but by no means the only (see Innes 2004), theory underpinning collaborative planning approaches.

Similarly, the natural resource management literature has become focused on finding and/or developing procedural theory to guide the implementation of collaborative approaches to natural resource management (e.g. Mitchell 1986, Born and Sonzogni 1995, Margerum 1997, 1999, Hooper *et al.* 1999, Yaffee 1998). In this, a number of authors, particularly those advocating the concept of Integrated Resource and Environmental Management

(IREM), have turned to the planning literature for guidance (e.g. Slocombe 1993, Selin and Chavez 1995, Margerum 1997, Margerum and Born 1995, 2000). Communicative planning theory, as the current dominant theoretical framework underpinning collaborative planning approaches, has become a cornerstone in the discussions in the IREM literature relating to the implementation of natural resource management (see Moore and Koontz 2003, Lachapelle et al. 2003, Gunton and Day 2003, Frame et al, 2004).

Communicative planning theory has been applied to IREM contexts in a relatively uncritical manner (Moote et al. 1997, Buchy and Race 2001, Moore and Koontz 2003). There has not been a systematic evaluation of whether communicative planning theory represents the most appropriate theory to guide IREM. Furthermore, there is no clear picture of whether communicative planning theory adequately identifies and accounts for the social, economic, biophysical, and political forces that shape natural resource decisions and outcomes.

In short, there is a limited basis on which to determine in which contexts, if at all, communicative planning theory should be encouraged to guide IREM. In response to this uncertainty, two complementary directions can be taken: empirical evaluation and theoretical analysis. While there is increasing recognition that empirical evaluations of collaborative approaches in resource management contexts is required (e.g. Bellamy *et al.* 1999, Buchy and Race 2001, Conley and Moote 2003), no agreed evaluative framework or criteria has been developed. This paper contends that an appropriate evaluative framework cannot be developed until the theoretical underpinnings of communicative planning theory are described and discussed in relation to resource management contexts.

This paper traces the development of communicative planning theory and its discussion in natural resource contexts. Specific focus is placed on identifying how communicative planning theory proposes to achieve its hypothesized benefits, and the critiques that refute these assertions. Finally, this article identifies some of the reasons driving the adoption of

this approach and presents a word of caution against the application of communicative planning theory as the foundation for improved IREM.

This paper does not assume that communicative planning theory is the only theory vying for recognition as the most appropriate to underpin collaborative planning approaches. Nor does it assume that this theory is the only one being advanced to underpin IREM. Communicative planning theory remains the focus of this paper because it represents the current dominant planning paradigm and it is increasingly being discussed and advocated as a basis for procedural theory in the IREM literature.

Defining collaborative planning approaches

Collaborative planning approaches have been described under a number of terms, both in the planning and IREM literature, that each draw on particular theoretical bases and emphasize particular characteristics. These terms include: transactive planning (Friedmann 1973), communicative planning (Healey 1997, McGuirk 2001), consensus building (Innes 1995, Innes and Booher 1999), co-management (Paulson 1998), cooperation (Yaffee 1998), coordination (Margerum 1999), and partnerships (Mitchell 1997). Essentially, these terms describe approaches to planning and management that involve ‘the pooling of ... resources by two or more stakeholders to solve a set of problems which neither can solve individually’ (Gray 1985: 912). They imply a sharing of power and a collective responsibility for both management actions and outcomes (Selin and Chavez 1995: 190).

In the empirical and theoretical literature of both the planning and natural resource management fields, implementing a collaborative approach to address a problem involving multiple stakeholders is argued to result in a wide array of benefits. These benefits include the ability to:

- combine information, knowledge and skills from multiple stakeholders (Mitchell 1997, Margerum 1999);
- generate agreement over solutions (Innes and Booher, 1999);
- create a sense of ownership over the outcomes (Mitchell 1997);
- open communication channels between participants (Buchy and Race 2001);
- achieve mutual learning and personal growth from participants (Healey 1997, Sager 1994, Buchy and Race 2001); and,
- bring about increased democratisation of the decision making process (see Forester 1985, Sager 1994, Healey 1997).

While the theorized benefits of collaborative planning practice are well documented, it is less clear *how* they are achieved, and *why* they result from some approaches and not in others. To demonstrate, it is necessary to critically analyse communicative planning theory.

Key principles of communicative planning theory

As yet, no consensus has been reached within the literature regarding procedural theory to underpin collaborative planning approaches (Innes 2004: 6). However, this lack of defined and agreed theoretical framework has not stopped collaborative planning approaches from being advocated as a solution to many social and environmental ills (see Innes 1995, Healey 1997). In an attempt to move collaborative planning from a theoretical concept to a practical reality the literature has become concerned with developing procedural theory.

Attention has become focused on the concept of communicative planning theory as a theoretical foundation for collaborative planning approaches. Communicative planning theory comprises the theorized benefits predicted to result from its application, the way in which the benefits are hypothesized to be achieved, and the ideals/philosophy underpinning

the concept. Proponents argue that this theory is the most appropriate to underpin, inform, and shape planning practice.

Communicative planning theory has its foundations in the Habermasian critical theory of 'communicative rationality' (see Habermas 1984). In his theory of 'communicative rationality' Habermas advocates the application of a collaborative model of decision-making as a tool to achieve the democratisation of wider society. A number of planning theorists (e.g. Forester 1985, Healey 1997, Sager 1994, Innes 1995, Innes and Booher 1999) have drawn on Habermasian theory and applied it to develop an approach to planning with the aim of creating more democratic planning and decision-making processes (Tewder-Jones & Allmendinger 1998, McGuirk 2001). A multitude of interpretations of Habermasian theory, the role of planning, and the political context in which planning operates have meant that there is no unified version of communicative planning theory. Instead, it comprises a 'loose cluster of scholars who read and reference each others work but write about very different topics' (Innes 2004: 6).

This very fluidity has made communicative planning theory both popular (it can be all things to all people) and difficult to critique. As a consequence, to improve the understanding of communicative planning theory and to enable a critique of its application to natural resource management, it is necessary to focus on the theoretical underpinnings of this theory. As such, it is important to describe and discuss the fundamental elements of Habermas's (1984) theory of 'communicative rationality' on which communicative planning theory is based.

When approaching the theory of communicative rationality it is important to note that Habermas constructed his conception of society in the broad Marxist tradition (Outhwaite 1994). Outhwaite (1994: 6) asserts that underlying Habermas's (1984) theory of communicative rationality was his preoccupation with the idea that instrumental (science

based) rationality, seen as a liberating force at the time of the Enlightenment, has now become a source of enslavement. Habermas argues that this enslavement has occurred because the power to make decisions has been removed from the individual, or the community, through the development of an “objective” test of truth. Decisions, then, are vested with those that construct, and have the knowledge to appeal to, this decision framework, namely the elites of society (Outhwaite 1994: 6). It is from this position that Habermas (1984) proposes his social theory of ‘communicative rationality’, in which he proposes to replace “scientific” measures of rationality in decision-making with measures that are founded in democratic argumentation.

The foundation for Habermas’s (1984) theory of ‘communicative rationality’ is his rejection of the concept that society is made up of individuals that come into contact with each other (interact) as each one pursues the goal of maximising their own self interests (see Forester 1985, Healey 1997). Instead, Habermas (1984) conceptualises society as being made up of individuals whose consciousness is continually being socially constructed through interactions with other individuals. He hypothesises that individuals construct their own conceptualisation of reality in two ways. Firstly, reality is constructed within an individual’s own consciousness through their own perceptions, moral reasoning, and emotive feelings (Healey 1997). Secondly, the construction of reality by an individual is influenced through the interaction with other individuals, each holding their own constructions (Habermas 1984, Healey 1997).

Habermas (1990) argues that, in this context, a decision-making process that encourages the collective construction of goals can create an environment in which achieving understanding and agreement, rather than the achievement of self-benefit, become the aim. The decision-making approach that Habermas (1984) proposes is his theory of ‘communicative rationality’, in which he theorises that collective reasoning, argumentation, and analysis can

develop a unified vision of reality, and thus create social integration, group solidarity, and coordinated action. Habermas (1984) argues that capitalist economic and socio-political systems that make up the overarching structure of society encourage the pursuit of individual success, and this institutionally ingrained knowledge framework has replaced social interaction and discussion as the force driving the construction of reality by an individual¹. Habermas (1984) proposes to reduce the influence that the capitalistic structure of society (expressed through the overarching political and economic system) has over an individual's construction of reality by replacing this with decision processes based on collective reasoning.

Proponents of Habermasian theory in the planning literature argue that planning and management decisions should not be based on scientific or political evaluation of what is rational (which support the existing structure of society), but should be socially determined through interaction and discussion by affected stakeholders. Decision-making thus becomes a form of interactive collective reasoning (Healey 1997), where rationality is determined through consensus or agreement (Forester 1985), and is developed through applying all forms of reasoning, including scientific, moral, ethical, and emotional analysis (Healey 1997). It is this theoretical basis that planning theorists have drawn on in their development of communicative planning theory.

While communicative planning theory has grown in popularity, it is not without its critics. This theory has come under the criticism that it advances an approach to decision-making that would be dominated by powerful elites who could use their influence and coercive power to marginalize less dominant interest. Outcomes, instead of being democratic, would favour more powerful interests (see Hillier 2003, Flyvbjerg 1998). To counter this argument, communicative planning theorists infer that traditional power inequalities can be overcome

¹ This is what Habermas (1984, 1990) refers to as the colonisation of the life-world.

when debate occurs in an environment where traditional power structures are set aside and where argument is based on principles of honesty, sincerity, and openness (see Healey 1997). This is referred to as an “ideal speech situation”, an environment in which domination does not occur and each stakeholder has the same opportunity to present arguments and have them accepted (Sager 1994: 5).

In Habermas’s ideal speech situation, participants explore each other’s concerns and the context of these concerns. This requires that participants recognize and respect different kinds of claims, and collectively develop a decision framework that provides validity and priority to different arguments. This decision framework provides subjective criteria as an alternative to the traditional “objective” criteria that instrumental rationality claims to provide (Healey 1997: 52-53). In this context, the power of the better argument is believed to win the day, resulting in outcomes that represent not relative individual perceptions but collectively agreed “truths” or “values”.

This analysis identifies that, primarily, communicative planning theory seeks to encourage a more democratic approach to decision-making. Communicative planning theory can be conceptualised as a theory of decision-making that aims to transcend traditional power structures (i.e. government and wider societal structures) and empower participants to collectively interpret and make decisions. It does not seek to transform traditional power structures by modifying existing organisational structures (i.e. restructuring government departments etc.), but by drawing together representatives (stakeholders) from government and the community to collectively make decisions that each stakeholder will take away with them to provide the basis for future action.

Communicative planning theory offers opportunities for exchanging ideas, bringing stakeholders together, and encouraging the development of negotiated decisions and outcomes. However, there are a number of elements of this theory (e.g. the question of

power) that bring into question its ability to engage with and account for the social, economic, biophysical, and political forces that influence natural resource decisions and outcomes. To identify how communicative planning theory came to be advanced to underpin IREM procedural theory it is necessary to trace recent developments in the planning and IREM literature.

The rise of communicative planning theory in the planning and IREM literature

With the similarity of contexts within which planning and IREM is undertaken, it is not surprising that there is an interchange of ideas and concepts between the literatures that support these fields. This exchange has occurred with the concept of communicative planning theory. Table 1 traces how communicative planning theory emerged in the planning literature, and how this literature came to be advocated by some authors to guide the implementation of natural resource management. Before discussing Table 1 (starting in the 1980s) it is perhaps necessary to provide some background to put its emergence into context.

Table 1: Tracing the recent development of communicative planning theory in the planning and the IREM literature.

Period	Planning Theory	Resource and Environmental Management Theory
1980s	Application of Habermasian theory, particularly the theory of 'communicative rationality' to planning (Forester 1985). This was used to develop a normative model of planning.	Development of the concept of IREM increased attention on the need for collaboration (see Mitchell 1986).
1990s	<p>Increasing application of Habermasian theory to planning (see Healey 1997, Sager 1994, Innes 1995). Theory is adapted and refined to suit planning theory.</p> <p>Critiques of Habermasian theory and its application to decision-making as a way to achieve democratic and equitable outcomes emerge in the policy sciences literature (Flyvbjerg 1998, Tewdwr-Jones and Allmendinger 1998). These are typically based on a Foucauldian analysis.</p>	<p>Consolidation of integrated approaches into a unified theory, coupled with better development of the substantive elements of these approaches (see Mitchell 1986, Margerum and Born 1995, Born and Sonzogni 1995, Margerum 1997).</p> <p>Increased acknowledgement that there was a procedural gap in the theory concerning the implementation of integrated approaches (Margerum and Born 1995, Margerum 1997).</p> <p>Calls for the adoption of planning theory to underpin procedural elements of IREM theory (Slocombe 1993, Born and Sonzogni 1995, Margerum, 1997).</p>
2000	Building on the critiques of the policy science literature, criticism of the ability of communicative planning theory to achieve democratic and equitable outcomes begins to emerge in the planning literature (see McGuirk 2001, Hillier 2003)	<p>Endorsement of communicative theory as procedural theory for IREM (see Gunton and Day 2003, Frame <i>et al.</i> 2004)</p> <p>Review/analysis of collaborative approaches to natural resource management identify that outcomes have not always achieved aims (see Moote <i>et al.</i> 1997, Buchy and Race 2001, Parkins 2002)</p>
Current	Increasing calls from the planning and IREM literature for the evaluation of collaborative planning practice (Innes and Booher 1999, Bellamy et al. 1999, Conley and Moote 2003)	
Future?		

The planning literature in the 1960s, 1970s and 1980s became a forum for critique of the rational-comprehensive approach to planning that, then represented the dominant planning paradigm. Criticism came from multiple perspectives, including critical theory, post-modernism, and even from practice (see advocacy planning). Many of these critiques focused on the inability of the rational-comprehensive approach to adequately address issues of inclusivity, pluralism, and the perceptions/attitudes of affected individuals. As the rational-comprehensive approach began to lose dominance in the face of these critiques, the planning field was ready to embrace a new paradigm.

While there were many competing theories, political realities of the 1980s (including the embracing of economic rationalism and a movement away from government supported planning) created an environment in which collaborative approaches to planning became the most practical (see Dear 1986). Collaborative planning practice was being implemented on a much broader scale than previously witnessed without a clear underpinning theoretical framework. Practice was essentially leading theory. It was into this environment that Forester (1985) introduced Habermasian theory to the planning literature. Planning practitioners and theorists alike, hungry for much needed procedural theory, embraced Habermasian theory, and it continues to form the basis for communicative planning theory.

Concurrent with these developments taking place in the planning literature, natural resource management theory was undergoing its own reorganization. While there is a long history of collaborative approaches to natural resource management (see Mitchell 1986), there has been limited procedural theory to guide its implementation. The theory behind concepts such as co-management and adaptive management provided some guidance on how to implement collaborative approaches, but not enough to form a comprehensive procedural theory. In response to the need to improve implementation in complex and multi-stakeholder settings the concept of IREM emerged in the literature.

IREM draws on theory that underpins concepts such as co-management, adaptive management, and landscape ecology in its aim to develop a framework to guide the implementation of natural resource management. Proponents of IREM seek to improve implementation by marrying the substantive concerns of the physical sciences with the procedural concerns of the planning field (see Slocombe 1993, Margerum and Born 1995, Margerum 1997). These authors sought to apply the experience the planning field has with managing conflict, working with multiple stakeholders, public participation, and dealing with the political nature of decision-making to natural resource management.

For the procedural aspects of IREM collaborative planning approaches held particular appeal because it has been asserted that this approach to decision-making is suited to dealing with complexity (Innes 1995), and is more appropriate in contexts characterized by turbulent social and political situations (Selin and Chavez 1995). As communicative planning theory represented the dominant theory underpinning collaborative planning approaches in the planning literature the theory has come to be advanced, in some quarters of the IREM literature, as procedural theory to guide the implementation of natural resource management. However, there are reasons to be cautious about encouraging communicative planning theory as procedural theory for IREM.

Critiques of communicative planning theory: impediments to the practical application of this theoretical framework

Critics identify a number of barriers that inhibit the application of communicative planning theory as procedural theory for guiding IREM. These barriers can be summarized under three key issues:

- the attitudes and perceptions of participants;
- the way power and interests emerge within decision-making processes; and,

- the influence of the institutional arrangements within which decision-making takes place.

Participant attitudes and perceptions

A review of case study descriptions indicates that, despite the claims of communicative planning theory proponents, collaborative decision-making processes (like other decision-making processes) occur in value-laden environments where participants bring to the decision-making process their values, attitudes, perceptions and interests (see Moote *et al.* 1997, Paulson 1998, Kellert *et al.* 2000, McGuirk 2001, Parkins 2002, Bradshaw 2003). Paulson (1998) and Moote *et al.* (1997) identified that, within the case studies they reviewed, values were so deeply held that collaborative processes could not modify them. In fact, Moote *et al.* (1997) stated that in these circumstances drawing stakeholders together in a collaborative decision-making process can actually increase conflict, rather than encourage agreement. Conflict results because participants, representing different interests and holding divergent views, cannot always reach agreement.

Conflict can also be exacerbated by the very nature of collaborative decision making. Negotiated outcomes can create ‘winners’ and ‘losers’, which can be defined in terms of stakeholders winning or losing power or responsibility to control the use of a natural resource, or the loss of a right to achieve some gain (economic, social or biophysical) from a natural resource. The consequences of this outcome are perhaps best articulated by Hooper *et al.* (1999: 756):

Any group which perceives it may be one of the losers is unlikely to exhibit enthusiasm for co-ordinating and collaborating, and instead is more likely to adopt a defensive position to protect what is perceived to be its own interests.

The creation of ‘winners’ and ‘losers’ through negotiated outcomes, and the subsequent stakeholder actions resulting from these outcomes, represent a key critique of

communicative planning theory. Outhwaite (1994: 110) identifies that Habermas's theory of communicative action (in which collective decision-making models are proposed to elevate communal concerns over self benefit as decision-making criteria) is in contrast to 'a substantial body of theory' that views social action as driven from the strategic principle of the pursuit of rational self-interest.

The view that self-benefit forms a key criterion for decision-making in natural resource management contexts is supported by the argument that stakeholders will only enter a collective approach if doing so assists each to achieve their own individual aims (Yaffee 1998). Collaborative decision-making processes remain functional by pursuing win-win outcomes for participants, with final decisions being shaped by the interests of participant stakeholders and the negotiating power each wields (see Flyvbjerg 2002). This argument is in direct contradiction to communicative planning theory and questions whether decision-making processes structured around this theory produce real improvements to the way natural resources are managed.

Traditionally, decisions concerning natural resource management were undertaken through the application of scientific knowledge within a political framework of guiding legislation and administrative practices (Yosie 2001). With the advent of collaborative planning approaches, scientific evidence may no longer represent the key means to gain legitimacy for natural resource decisions (see Yosie 2001, Hillier 2003). Scientific information may be marginalized in collaborative decision-making processes because individual participants often lack technical expertise (Yosie 2001) and stakeholders often commit to values and decisions as a matter of identity, not necessarily for rational reasons (Hillier 2003: 39). Further, the advice and guidance of planners, resource managers and other experts may carry less weight as these experts (in keeping with the pluralistic approach advocated by

communicative planning proponents) are treated as just another stakeholder with contestable arguments (Tewdwr-Jones and Allmendinger 1998: 1984).

If decisions move away from science as a basis for policy towards agreement from stakeholders then this can result in decisions that do not adequately address natural resource issues, but simply satisfy social constructions of what is adequate management. Most of the perceived benefits of collaborative approaches relate to improvements in procedural aspects of implementation (i.e. more democratic decisions, the inclusion of values and moral arguments), and not to improvements in the way that natural resources are managed (Bellamy *et al.* 1999, Tewdwr-Jones and Allmendinger 1998: 1983).

Perhaps the implementation of collaborative planning approaches can be described as a “leap of faith” in the belief that improvements to the processes of natural resource decision-making will be translated into improvements “on-the-ground”. Evidence provided by a review of existing collaborative approaches to natural resource management undertaken by Margerum and Hooper (2001: 7), however, indicates that the transition to a collaborative approach does not necessarily translate into improved natural resource management.

The issue of power

As a result of the fragmented nature of responsibility for natural resource management, and the competing interests involved, power struggles lie at the heart of natural resource management (Buchy and Race 2001). In this context, every decision becomes a political one. Communicative planning theory has been criticised for an inability to prevent powerful elites (both interest groups and individuals) from overly influencing planning outcomes (see Flyvberg 1998, 2002, McGuirk 2001, Hillier 2003). As a consequence, the ability of communicative planning theory to deliver on its proposed benefits is beginning to be questioned, both in the planning and the IREM literature.

The main criticism of the way communicative planning theory deals with power is perhaps best described by McGuirk (2001: 196), who states that this theory does not sufficiently take into account the politics and power-laden context in which planning operates. This critique is reiterated by Flyvbjerg (2002: 353), who identifies that a focus on Habermasian communicative rationality has resulted in a failure to acknowledge political power struggles that are inherent in decision-making. These criticisms are supported by case study research that identifies that decision-making under a collaborative approach does not take place in a power-free environment. Instead, participants and external interest groups bring power to bear in an attempt to influence outcomes (Buchy and Race 2001, McGuirk 2001, Parkins 2002, Bradshaw 2003).

There are a number of ways that power can be used to influence the outcomes of collaborative decision-making processes. For instance, powerful interests within a community (local elites) can utilise their influence to bias outcomes (see McGuirk 2001, Bradshaw 2003). Buchy and Race (2001) and Parkins (2002) identify that those designing or facilitating the collaborative processes can use their power to influence outcomes by controlling what type of information is introduced, and what alternatives are open for discussion. Power can also be expressed through political channels for, as Brown (2002) indicates, even collaborative processes that produce enduring agreements between involved stakeholders can be vetoed by those in power (e.g. government bodies) if those charged with making a decision are also not allocated the power to make it policy.

McGuirk (2001: 196) argues that communicative planning theory does not accept that powerful interests can influence the outcomes of collaborative approaches. Communicative planning theorists (e.g. Innes 1995, Healey 1997, Innes and Booher 1999) infer that power inequalities can be overcome through decision-making structures that focus on gaining agreement through stakeholder debate. McGuirk (2001) and Hillier (2003) contend that this

is a somewhat naïve proposition, reflecting how communicative planning theory assumes away, rather than engages with, the issue of power inequality. For collaborative approaches to move towards developing equitable and sustainable outcomes, power needs to be accepted as an integral part of the decision-making process, and theories and practice need to be modified to identify how to operate within this context (McGuirk 2001, Flyvbjerg 2002, Hillier 2003).

Institutional and external influences

Collaborative approaches operate within, and do not replace, an overarching framework of legislation, policy, and defined stakeholder responsibilities. This framework can be described as the institutional arrangements within which planning and management take place. These institutional arrangements provide structure for how decisions are made and implemented. In this way, institutional arrangements have a large influence over the outcomes produced (see Kellert *et al.* 2000, Buchy and Race 2001, Lachapelle *et al.* 2003). This influence can be expressed through intentional intervention, as in vetoing of collaborative decisions as outlined by Brown (2002), or simply through the influence of a political and administrative system that encourages (or discourages) certain responses to natural resource issues.

Current institutional arrangements include administrative boundaries that often bear no relation to ecological, economic, or social processes operating within a given region. Additionally, responsibility for planning and management is fragmented into a number of government departments and agencies, located within multiple levels of government. To achieve a holistic approach to natural resource management in the current institutional environment, four levels of coordination are required:

- Horizontal coordination across administrative boundaries, as political boundaries do not respect ecological ones;

- Horizontal coordination between agencies and departments within the same level of government when management responsibility for components of a single natural system is fragmented between them;
- Horizontal coordination between government and non-government stakeholders who affect, or are affected by, natural resource management; and,
- Vertical coordination when responsibility for management of the processes of an ecological unit rests with different levels of government.

(Slocombe 1993; Hooper et al. 1999)

While communicative planning theory proposes that this level of coordination can be achieved through the development of a collaborative decision-making process and through relationship building, there are many barriers to its achievement.

One of the major difficulties in achieving coordination has been identified by Hooper *et al.* (1999), and Yaffee and Wondelleck (2003) as resistance to power sharing by government agencies and departments, especially where its acceptance diminishes the rights previously held. Chaskin (2005) identifies a key reason for this unwillingness by government agencies to devolve power to community groups as discordance between community-based collaborative decision-making processes and the rational-comprehensive approach to decision-making of (government) institutions. Collaborative decision-making processes challenge the traditional approach to decision-making within government agencies and are met with opposition.

Communicative planning theory focuses on the process of collective decision-making as a mechanism to achieve coordination (which inherently is an issue of power sharing). Margerum (1997) argues that this focus does not adequately take into account the structural changes that need to take place within institutions to achieve coordination. Collaborative

planning approaches cannot comprehensively address issues without external support from policy makers, the public, and industry. To achieve a holistic approach to management, collective decision-making processes must be framed by supportive institutional arrangements. By focusing on internal decision-making processes, communicative planning theory fails to acknowledge the role that external institutional arrangements play in shaping outcomes (Chaskin 2005).

In addition to institutional barriers, there are also wider external forces that limit the effectiveness of collaborative decision-making processes, especially when addressing complex problems. In the context of natural resource management Buchy and Race (2001: 294) identify that forces such as economic rationalisation or global market forces may be far more powerful determinants of resource use than those forces addressed through a collaborative planning approach. Communicative planning theory seeks to control some of the forces that influence resource use, but there are many factors that are beyond the capabilities of this theory.

Critiques of communicative planning theory have had an impact in the planning literature. Recently, proponents of communicative planning theory have begun to distance themselves from the growing body of literature endorsing this procedural theory (see Forester 1999, Healey 2003, Innes 2004). In doing so, these authors have acknowledged many of the criticisms levelled at communicative planning theory and have sought to temper enthusiasm for its application:

I do not mean to claim that inclusionary collaborative processes are inherently ‘the best’, or even ... that they are the most appropriate for ‘our society’ at the present time. Instead [when discussing communicative planning] I suggest critical questions that those designing and evaluating policy process should be encouraged to ask. (Healey 2003: 115)

Consensus building is not a panacea. It is time consuming and requires skilled staffing. It only makes sense in situations where stakeholders are not satisfied with their options working alone or with few others and where significant problems that they all care about demand solution. It is only worth doing when acceptable solutions are not emerging from traditional decision-making processes. (Innes 2004: 15)

Communicative planning theory began as a procedural theory to underpin community planning processes to foster inclusionary planning practice. Along the way it evolved into a procedural theory that was advanced as the most appropriate approach for broad-scale and complex decision-making. It can now be seen that, in the literature, both critics and proponents alike have attempted to reign in proponents that unquestioningly advocate communicative planning theory. As yet, these developments do not appear to have tempered enthusiasm for this theory in the IREM literature. Researchers and practitioners should take heed of these recent developments and view collaborative planning approaches, and communicative planning theory specifically, with caution.

Conclusion

Communicative planning theory is increasingly being advocated in the literature as procedural theory for guiding the implementation of IREM. Analysis within this paper has identified that communicative planning theory does not adequately address or account for important forces that shape resource management decisions and outcomes. This paper provides a reminder to be cautious in the acceptance and endorsement of communicative planning theory. Based on critique, however, it provides direction for the extension of existing theory towards a more appropriate guide for implementation.

The limitations of communicative planning theory, when applied in natural resource management contexts, are fourfold.

- Firstly, communicative planning theory fails to acknowledge the influence that external forces have in shaping decisions and outcomes, and advances no way in which to identify, understand, and critically engage these influential forces.
- Secondly, the decision-making process advanced by communicative planning theory fails to adequately account for power-inequalities shaping outcomes. It advances an approach to decision-making that remains open to manipulation by powerful stakeholders.
- Thirdly, the decision-making process promoted by collaborative planning theory encourages socially constructed, rather than scientifically developed, decisions and outcomes. The final decision-making criteria are collectively constructed and subjective in nature. While science can have a role to play in the development of these criteria it can just as easily be omitted, if that proves more convenient for participants.
- Finally, there is no evidence to suggest that the decision-making process advanced in communicative planning theory results in better management of natural resources. Predicted benefits largely relate to procedural aspects of management rather than actual natural resource management actions.

Early proponents of communicative planning theory are now beginning to revise previous assertions to temper the expectations arising around this theory. So far, the establishment of boundaries around communicative planning theory (What it can achieve? When it is most appropriate? What are its limitations?) has been embedded within the planning literature. These recent developments have yet to be clearly discussed within the IREM literature and communicative planning theory continues to be advanced in some quarters as a potential basis for procedural theory for implementation. Caution should be exercised in the

encouragement of communicative planning theory until the limitations of this concept are more fully understood.

The current natural resource management landscape is one where practice is essentially leading theory. In this context it is important to concentrate on building procedural theory from practice, by examining real natural resource problems and the innovative ways practitioners have developed to address these issues in messy, complex, and politically charged environments. This paper has been focused on critiquing collaborative planning approaches (and their application to IREM contexts) from a theoretical perspective. This focus offers little opportunity to identify specific policy or management implications for these approaches. Empirical evaluation of practice is required.

Through identification of the shortcomings of communicative planning theory this paper provides focus for evaluative and analytical frameworks. Evaluation of practice should focus on, firstly, how stakeholder power, attitudes, and interests are expressed within, and influence, collaborative decision-making processes and, secondly, on how institutional and other external forces shape decisions and outcomes. Such knowledge is necessary before developing procedural theory designed to mediate these influences.

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Appendix B

Synthesis of attempts to evaluate collaborative
approaches

Appendix A

Synthesis of attempts to evaluate collaborative approaches

Author	Case Study	Type of research	Evaluative Criteria	Results: The key influences shaping decisions and action within the collaborative approach
McGuirk (2001)	Analysis of a collaborative planning process to redraft Development Control Plans for Newcastle, New South Wales.	Theory-outcome comparison	<p>Unstated. It appears to be based on Habermas's ideal speech situation (see section 2.4).</p>	<ul style="list-style-type: none"> • Participants brought into the collaborative process the attitudes, perceptions and power relations that existed external to the collaborative approach. As such, external power inequalities came to influence decisions made. • Participants appeared to be focused on achieving their own aims rather than identifying and working towards a collective good. • Stakeholder interactions were influenced by institutional and political legacies. In this way the institutional arrangements influenced the decisions. • The theoretical ideal of "communicative rationality" was concluded to be unattainable, because power relations always influenced the decision-making process. In this context collaborative planning models should be designed to work within this power structure, rather than trying to assume it away as theory currently does.
Parkins (2002)	Evaluation on Forestry Resource Advisory Groups	Theory-outcome comparison	<p>Uses a criteria drawn from Calhoun (1992), and based on Habermas's the ideal speech situation.</p>	<ul style="list-style-type: none"> • The collaborative approach was not characterised by debate and collective decision-making, but was controlled by those who design and oversee the process. • Those controlling the collaborative process acted as the gatekeepers of information, controlling what information was introduced and what decision options were "on the table". This allowed those controlling the collaborative approach to set the agenda, determine legitimacy, and marginalise stakeholders who did not share their perspectives.
Buchy & Race (2001)	Buchy & Race (2001) evaluated three collaborative approaches to natural resource management in Australia.	Theory-outcome comparison	<p>Buchy & Race (2001) develop their own criteria under four main concepts:</p> <ul style="list-style-type: none"> • Commitment and clarity; • Time and group dynamics; • Representation; and, • Transfer of skills. 	<p>A collaborative environment was found to be characterised by powerlessness for the participants involved in the process. Buchy & Race (2001: 300-303) identified that:</p> <ul style="list-style-type: none"> • Forum members where being selected by the government agency overseeing the collaborative process, rather than being nominated or elected by stakeholder groups; • Participating stakeholders lacked any real influence over government policy and program implementation; • Stakeholders were restricted to playing a passive role of 'identifying' key issues and 'advising' government, rather than being allowed to campaign for positive change. • All stakeholders were not represented; • Results from participatory processes could still be overruled by political decisions; and, • There was limited genuine power sharing between local farming communities and government.

Moote, McClaran, & Chickering (1997)	Evaluation of a single case study of the Bureau of Land Management in the U.S.	Theory-outcome comparison	Evaluation criterion was drawn from participatory democracy concepts.	This case study demonstrated that collaborative approaches can not only fail to resolve deep-seated conflicts, but can in fact exacerbate them. Conflict was found to be exacerbated by a lack of structure to the interactions and meetings that took place between stakeholders, leading Moote et al. (1997) to propose strong rules of behaviour and protocol need to be part of the design of collaborative approaches.
Curtis & Lockwood (2000)	Review of the success of Land care and Catchment Management in Australia	Theory-outcome comparison	Evaluative criteria based on a review of the literature to identify key elements for success.	Curtis & Lockwood (2000) identify a number of structural design elements that contribute to successful practice, including: <ul style="list-style-type: none"> • clear separation and communication of responsibility between community groups, regional bodies and government agencies; • developing an agency culture that supports community participation; and, • creating healthy relationships between community groups and government agencies.
Margerum (1999a)	Draws on 23 case studies to identify elements of integrated approaches that increase the likelihood of successful implementation.	Comparative case study	No stated criteria. The author identified what was considered to be successful integrated approaches. Participants were surveyed, and observations conducted in an attempt to identify the elements contributing to this success.	Margerum (1999) identified elements within a number of phases predicted to contribute to the successful implementation of integrated approaches, including: <ul style="list-style-type: none"> • Initiation <ul style="list-style-type: none"> • Laws and policies support an integrated approach • There are resources to support the collaborative planning process • Major stakeholders are willing to participate in a collaborative effort • Stakeholder selection processes are deemed legitimate • There are people with the skills and time to lead the effort • Operation <ul style="list-style-type: none"> • Stakeholders develop clear and effective processes for communicating • Stakeholders use clear decision rules • Stakeholders consult with the general public • Stakeholders base management decisions on sound system understanding • Outputs and outcomes <ul style="list-style-type: none"> • Stakeholders foster familiarity, common goals and mutual understanding • Stakeholders develop a strategic, flexible strategy to guide implementation • Stakeholders identify actions that address a full range of factors • Stakeholders support implementation actions • Stakeholders identify a model for intervention to achieve management goals • Stakeholder committees assert their role in management activities • Stakeholders create structures for coordinating decision making • Stakeholders support implementation with information and education programs • There are resources to support or induce implementation • Stakeholders implement immediate actions to build confidence and momentum
Kellert, Menta, Ebbin, & Lichtenfeld (2000)	Examines collaborative approaches in Nepal, Kenya and the U.S. aiming to identify factors associated with the success and failure of these approaches.	Comparative case study	Evaluative criteria included the concepts of: <ul style="list-style-type: none"> • Equity; • Empowerment; • Conflict resolution; • Use of knowledge; • Biodiversity protection, and; • Sustainable utilization of 	Kellert et al. (2000) conclude that the reality of collaborative approaches falls far short of the rhetoric and promise offered in the literature. They found that implementation was constrained by the complexity of goals, interests and organisational features of collaborative approaches. They proposed that the key to successful implementation may be institutional design and organisational reform <ul style="list-style-type: none"> • More fundamentally, Kellert et al. (2000) found that collaborative approaches could not adequately balance the objectives of socioeconomic development, biodiversity protection and sustainable resource utilisation. In fact, they identified that conservation goals were often marginalised by a continued focus on social and economic development (Kellert et al. 2000: 709) • Kellert et al. (2000: 709) also found that the outcomes were unequally distributed and their allocation was more reflective of power relations than agreed outcomes.

Appendix B – Synthesis of attempts to evaluate collaborative approaches

resources

Margerum (1999a)	Analysis of collaborative approaches to catchment management in the U.S and Australia.	Comparative case study	No stated criteria. It was an exploratory study into elements of collaborative approaches that assist or impede implementation.	The research demonstrated that groups involved in collaborative approaches had significant potential to develop closer relationships and social capital but this was not being realised to their full potential. Constraining their development, and the production of positive outcomes, was a lack of strategic direction, insufficient community involvement, and a lack of commitment to the process by stakeholders.
Lachapelle, McCool, & Patterson (2003)	A study of collaborative planning case studies to identify barriers to effective implementation in the Western U.S.	Comparative case study	No stated criteria, although barriers identified in a literature review were used as a foundation for the data collection.	Lachapelle et al.(2003) identified five key barriers to successful implementation of collaborative approaches to natural resource management: <ul style="list-style-type: none"> • Inadequate goal definition; • Lack of trust; • Procedural obligations (poor consultation strategies) • Inflexibility (in time, funding and personal resources available to participants); and, • Institutional design (centred on three main themes of power held by agencies and staff, influence of special interests, and public apathy). Lachapelle et al. (2003) argued that procedural and relationship barriers that impeded successful collaborative approaches were the result of flawed institutional arrangements that resulted in a flawed design for the collaborative approach. They argue that holistic improvements for the collaborative approach can result from addressing the structural design.
Selin, Schuett & Carr (2000)	Examination of the performance of 30 collaborative initiatives from around the U.S.	Comparative case study	No stated criteria. Elements for exploration in the case studies were drawn from the literature on previous studies of effective collaboration.	Selin et al (2000: 744) found that participants in collaborative approaches identified a number of improvements to relationships between stakeholders, including better coordination, communication, enhanced resource sharing and increased levels of trust. Selin et al. (2000: 747) also identified a number of elements that were important predictor of successful approaches. Including: <ul style="list-style-type: none"> • Strong leadership; • Having a broad representation of stakeholders; and, • Having a willingness to compromise and negotiate.
Carr, Selin & Schuett (1998)	Analysis of the effectiveness of collaborative planning processes in national forest management	Comparative case study	No stated criteria. Exploratory research into the experiences and perspectives of collaborative planning participants.	Carr et al. (1998) stresses the importance of relationships between stakeholders as an important determinant of successful collaborative approaches. They found that [s]uccessful collaboration requires that the participants transcend their individual interests in search of a group-level solution, something that will not occur in the absence of trusting relationships and risk taking among participants' (Carr et al. 1998: 744). Despite this need, a degree of distrust was evident within the collaborative approaches. Participants continually questioned other participants motives for participating. In response Carr et al. (1998: 744) state that more attention needs to be focused on the relationships between stakeholders at the individual level and through the design of collaborative processes.
Paulson (1998)	Exploratory analysis into collaborative approaches to public rangeland management in Wyoming.	Inductive	No stated criteria.	Paulson (1998) found that collaborative approaches may be able to identify common ground and reach solutions that meet multiple interests on some issues, but the underlying incompatible values held by some participants made progress impossible. Within collaborative approaches Paulson found that strategies were employed to minimise conflict (such as limiting group membership and using broad goals instead of specifics) but when it did emerge joint decision making was unsuccessful. Collaborative approaches were unable to alter these deeply held values and interests. Conflict needed to be brought out into the open and clarified, rather than downplayed or avoided as it was in this example.
Gibson & Koontz (1998)	A study of how institutional arrangements	Inductive	No stated criteria	Gibson & Koontz (1998) identified the importance of institutional arrangements in collaborative approaches. It was found that strong institutional arrangements were required that supported the values of the community, set guidelines to decision making, and ensured that decisions were made over time in accordance with the original

Appendix B – Synthesis of attempts to evaluate collaborative approaches

	influenced outcomes in community-based forest management in Indiana		Inductive	Michaelis (1999) identified the importance of institutional arrangements that supported and provided independence for the collaborative watershed body. Having this independence provided financial security (through allocation of a guaranteed budget), provided credibility to undertake planning, and increased voluntary participation.	charter set by the community. Without these supportive institutional arrangements providing a framework for decision making the values of individuals changed over time away from those felt by the wider community, and led to decisions that were contradictory to the original value system and charter of the community. Institutional arrangements were found to structure the values of participants and influence the decisions arrived at by the community.
Michaelis (1999)	Case study analysis of collaborative watershed management in Massachusetts.		Inductive	No stated criteria. It was an exploratory study into the elements that assisted or impeded implementation.	
Hillman, Aplin & Britley (2003)	Exploratory study into a case study of a river management committee in NSW.		Inductive	No stated criteria.	In the case study a number of positives were achieved through the collaborative process, including the development of social capital, the acceptance of consensus based decision making, and a commitment to adaptive management. Despite these positives the production of actual outcomes was constrained by institutional arrangements that conferred real power to the state government. Hillman et al. (2003) determined that greater autonomy could only be achieved through changing institutional arrangements to give participants greater independence to implement their own decisions and control over their own finances.
Bradshaw (2003)	Analysis of collaborative resource management in Canada.		Inductive	No stated criteria. A study to review and critique strengths and weaknesses of collaborative approaches.	Bradshaw (2003) identified the influence that external forces have over outcomes of collaborative approaches. Bradshaw (2003) identified that the economic circumstances of a community could largely influence outcomes, so much so that decision could be made to exploit the resource base for short term gain if the community was struggling economically. Bradshaw (2003) also found that power inequalities within the community came to influence outcomes of the collaborative approach, demonstrated when the local elite successfully promoted their interests over the broader interests of the community.
Haight & Ginger (2000)	Analysis of collaborative approaches to resource management.		Inductive	No stated criteria. An exploratory study to identify factors relating to trust and understanding in relation to structural design.	Haight & Grainger (2000) identified a relationship between the structural design (including the institutional arrangements) of collaborative approaches and the way science and social values were treated. The structural design of the process influenced how issues could be raised and discussed and how decisions could be made. In this way the design of the process was found to have an influence over the outcomes of the collaborative approaches.

Appendix B – Synthesis of attempts to evaluate collaborative approaches

Reed (1995)	Evaluation of the efficacy of a collaborative management of fish and wildlife resources in Canada.	Inductive	No stated criteria. Uses a political economy perspective to analyse the relationship between local economic structure and collaborative outcomes.	The case study Reed (1995: 145) analysed could be characterised as an environment in which participants competed to gain control over setting the agenda and were engaged in a competitive struggle for resources. Power inequalities were also evident as some stakeholders sought to influence others. Reed (1995: 146) identifies that when communities are characterised by divided interests competition will result for control over the process, constraining the ability to achieve collaboration.
Mackenzie (1997)	Explores a collaborative approach to remediate the Laurentian Great Lakes.	Inductive	No stated criteria. Exploratory research into difficulties in shifting from conventional to an integrated approach to resource management.	<p>MacKenzie (1997) identified a number of key areas that were important for successful implementation at both the procedural and institutional level:</p> <ul style="list-style-type: none"> • Agency participation is necessary as they have the responsibility to manage components of the natural system • The complexity of the ecological system virtually demands an interdisciplinary approach to problem solving • A framework for decision making is necessary. • Securing political and public support is important to achieve legitimacy for the collaborative approach. • Coordination of the activities undertaken by key stakeholders is important to achieve a holistic approach to natural resource management.

Appendix C

Sample interview questions

Sample interview questions

Questions:

- What is the role or position in natural resource management in the Condamine Catchment?
- What are the main tasks or duties that you undertake in this role?
- Who are the other organisations/stakeholders that you frequently interact with?
- Who would you describe as the stakeholders most responsible for determining the direction of natural resource management policy in the Condamine? Has it always been this way?
- Who are the stakeholders implementing natural resource policy on the ground?
- Have the role of the state agencies changed since the introduction of the National Action Plan?
- How did you gain membership of the Condamine Alliance?
- What do you see as the role of the Condamine Alliance?
- What do you see your role specifically in the Condamine Alliance?
- How did the Condamine Alliance come to be supported by the community as the Regional Body for the Condamine instead of the Queensland Murray-Darling Committee?
- What role does local government play in natural resource management?
- How would you characterise Condamine Alliances relationship with the State agencies? What about EDRPAC?
- Will the Condamine Alliance now be responsible for funding all land care, catchment coordinators, and natural resource management projects in the Condamine?
- What do you see as the future for Landcare and the Condamine Catchment Management Association in the Condamine?
- In your own words what would you describe as the purpose of the National Action Plan?

- Under the National Action Plan the model of natural resource management delivery seems to be through Regional Bodies. What do you see as the advantages and disadvantages of this approach?
- With the structure of the Condamine Alliance as an incorporated body and the contracting out of work, what do you see as the advantages and disadvantages of this approach?
- What is your reaction to the funding arrangements of the National Action Plan?
- Through your experience, what are the main challenges the Condamine catchment faces for implementing the National Action Plan?

Appendix D

Schedule of interviews

Appendix C

Schedule of interviews.

No.	Name	Position	Date Interviewed
1	Mr. Chris Hill	Planning Manager, South-west Region, Qld Environment Protection Agency.	31/10/02
2	Ms. Joan Meecham	Senior Natural Resource Management Planner, Qld Department of Local Government & Planning	1/11/02
3	Dr. Allan Dale	General Manager, Regional NRM Taskforce, Leadership and Support Team, Qld Department of Natural Resources & Mines	5/11/02
4	Mr. Greg Claydon	General Manager, Water Planning, Qld Department of Natural Resources & Mines	8/11/02
5	Mr. Peter Voller	Regional Vegetation Management Planning Co-ordinator, South-west Region, Qld Department of Natural Resources & Mines	20/11/02
6	Ms. Sandra Baxendell	Director for Regional Services, South Region, Qld Department of Primary Industries	20/11/02
7	Ms. Michelle Walker	Regional Manager, Planning, Qld Department of Natural Resources & Mines	6/12/02
8	Dr. Piet Filet	Strategic Environmental Officer, Toowoomba City Council; and	10/12/02
9	Ms. Sarah Moles	Member, Technical Advisory Committee, Condamine Alliance Wetlands Conservation Officer, WWF; Ex-coordinator, Toowoomba and Region Environment Council; and, Ex- Chair, Condamine Catchment Management Association	13/12/02
10	Cr. Dianne Thorley	EDRPAC Representative, Condamine Alliance; and Mayor, Toowoomba City Council	17/12/02
11	Mr. John Matthews	Executive Member, Condamine Catchment Management Association; and, Member, Queensland Murray-Darling Committee Executive	26/02/03
12	Mr. Royce Brown	Director, South-west Region, Qld Department of State Development; and, Ex- Chair, Condamine Alliance	26/02/03

13	Ms. Donna Moodie	Condamine Catchment Management Association representative, Condamine Alliance; and, Member, Condamine Catchment Management Association	26/02/03
14	Prof. Charlie Zammit	Member, Technical Advisory Committee, Condamine Alliance; and, Head, Land-use Research Centre, University of Southern Queensland	4/03/03
15	Mr. Andrew Drysdale	Executive Officer, Queensland Murray-Darling Committee	04/03/03
16	Dr. Simon Lott	Condamine Catchment Management Association Representative, Condamine Alliance; and, AgForce Representative, Condamine Catchment Management Association	10/03/03
17	Dr. Kathryn Galea	Chair, Condamine Alliance; Acting CEO, Condamine Alliance; and, Ex-member, Condamine Catchment Management Association	15/08/03
18	Mr. Michael Bradby	Team Leader, Regional NRM Taskforce, Regional Arrangements and Planning Team, Qld Department of Natural Resources & Mines	1/09/03
19	Mr. Ross Krebs	Regional Manager, Integrated Natural Resource Planning, Qld Department of Natural Resource & Mines	16/09/03
20	Ms. Tanya Stacpoole	Commonwealth Department of Environment and Heritage	22/09/03
21	Mr. David Curtis	Landcare Representative, Condamine Alliance	04/10/03
22	Cr. Bill McCutcheon	EDRPAG Representative, Condamine Alliance; and, Mayor, Chinchilla Shire Council	6/10/03
23	Cr. Paul Antonio	EDRPAC Representative, Condamine Alliance; and, Mayor, Millmerran Shire Council	06/10/03
24	Cr. Ron Bellingham	EDRPAC Representative, Condamine Alliance; and, Mayor, Warwick Shire Council	07/10/03
25	Mr. David Brown	Condamine Catchment Management Association Representative, Condamine	14/10/03

		Alliance; and,	
		Chair, Condamine Catchment Management Association	
26	Mr. Saint John Kent	Landcare Representative, Condamine Alliance	14/10/03

Appendix E

- (1) Letter of introduction
- (2) Consent form

School of Environmental Planning
Daniel Murray
Telephone: (07) 3875 3743 (W)
e-mail: D.Murray@mailbox.gu.edu.au

Dr. Dianne Dredge
Telephone: (07) 3875 7495
Facsimile: (07) 3875 7495

August 7, 2007

[Their Address here]

Dear [insert name here],

RE: REGIONAL NATURAL RESOURCE MANAGEMENT STUDY

As a follow up to the discussion we had by telephone on Monday morning, this letter briefly describes the research I am currently undertaking as part of the requirements for the Doctor of Philosophy program in which I am currently enrolled. As arranged, I will meet you on [insert date here].

The aim of this study is to examine regional approaches to Natural Resource Management (NRM) and the conditions contributing to successful development and implementation of NRM policy. In particular the study seeks to (1) develop a greater understanding of how NRM policy is developed, and (2) to identify opportunities and impediments towards further integrating NRM planning processes. I am undertaking a case study of the Condamine region. My reason for wishing to talk to you is that the study will be greatly enhanced by acquiring first hand knowledge of the issues by way of in-depth interviews with people presently or previously involved in NRM policy development and/or implementation. Accordingly, I appreciate your participation in the study.

In particular I would like to discuss with you a range of issues including:

- A brief history of NRM in the Condamine region;
- Key stakeholders in the region, their role and relationship with other stakeholders;
- Implementation of the National Action Plan for Salinity and Water Quality;
- The relationships between Vegetation Management, Catchment Management and Water Resource Planning; and

- What problems and opportunities you perceive as being important to address Natural Resource Management in the region.

I envisage that our meeting should last no more than one hour.

As explained in during our telephone conversation, I am required to undertake the study according to a certain research protocol. In particular, I will ask you to sign the consent form attached and ask your permission to tape the interview so that I may later transcribe it for analytical purposes. There is no problem if you do not wish the interview to be taped. The information that you provide will be confidential. At no time will the tape or the notes I might take be made available to persons other than my two thesis supervisors: Professor Lex Brown and Doctor Dianne Dredge, and myself.

The University requires that all participants be informed that if they have any complaints concerning the manner in which a research project is conducted it may be given to the researcher, or, if an independent person is preferred, either

The University's Research Ethics Officer, Office for Research, Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 3875 6618;

or

the Pro Vice-Chancellor (Administration), Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 3875 7343

Please feel free to contact me on my above contact numbers or by e-mail if you need to change our meeting. If you have any further questions about the research you can call me, or alternatively, my thesis advisor (Dr. Dianne Dredge) on (07) 3875 7495.

Griffith University acknowledges your participation and thanks you for your interest and involvement in this project.

Sincerely,

Dan Murray

Consent Form

I agree to have the interview audio taped, I understand that that I may review, edit or erase the recording if I so wish. I understand that the researchers will contact me at a later date if he requires clarification of any information that I have provided during the interview. Feedback will be provided to the participants involved in the study at the completion of the research project. Feedback will be in the form of a summary of the main findings.

I have read the information sheet and the consent form. I agree to participate in the study entitled '*An Evaluation of Stakeholder Relationships within a Multi-Stakeholder Approach to Natural Resource Management: A case study of the national action plan for salinity and water quality in the Condamine Catchment*' and give my consent freely. I understand that the study will be carried out as described in the information statement, a copy of which I have retained. I realise that whether or not I decide to participate is my decision. I also realise that I can withdraw from the study at any time and that I do not have to give any reasons for withdrawing. I have had all questions answered to my satisfaction.

Signatures:

Participant _____ Date _____

Investigator _____ Date _____

Thank-you for your participation!